Welcome to the Data Science Event, the annual careers event which aims to bring together students from all over the University to meet organisations with opportunities in this exciting field. For the first time the event moves from central Cambridge out to the West Cambridge Site, specifically the Seminar Suite in the Hauser Forum.

This event is an opportunity to meet practicing data scientists and organisations interested in recruiting candidates from Cambridge. Data science is a growth area for jobs, with an increasing number of employers seeking candidates who can use scientific principles to analyse large, often unstructured data sets to find patterns, solve problems and support decision making. Talk to the data scientists to find out what their jobs entail, what skills are needed, and how you can explore data science as a career opportunity.

You will find data science practitioners (and possibly a few graduate recruitment staff) from a range of organisations, and all will be keen to talk to you about the opportunities they can offer.

- **Study this programme** and choose the firms you would like to meet. Look also at the Career Biographies, giving insight into what the practitioners do on a day to day basis and their route into the industry.
- **Discuss things** not usually covered on websites, in recruitment brochures, or that you feel may not be appropriate topics at interview. (Avoid asking detailed questions that are likely to be covered by their recruitment brochures or websites.)
- **Make a note** of the people you meet. You can mention their names to help personalise your cover letter if you decide to apply.

If you have access difficulties or are challenged by a noisy, busy environment, if you identify yourself at the Careers Service table a staff member will assist you to make the best of the event.

As well as the Data Science Event we hope you consider also visiting:

- **Cam Connect** – local enterprise and technology,
- **Start-Up Event**, both held on Thursday 22 February, 3 to 6pm, in the University Centre, Granta Place, Mill Lane. At all events please be prepared to produce your university ID card to assist with attendance stats.

Do look at our website, www.careers.cam.ac.uk, for lots of other ideas.

Gordon Chesterman, Director
Cambridge University Careers Service
Stuart House, 6 Mill Lane
Cambridge CB2 1XE

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Ab Initio Software

Ab Initio provides a data processing software platform that our customers and consultants use to build applications that tackle their largest and most complex data processing challenges.

These applications are some of the largest operational and business intelligence systems in the world—mission critical systems with demanding performance requirements.

These might be processing huge amounts of data (petabytes of data are not uncommon); low latency real-time applications; applications that dynamically reconfigure themselves based on the data; applications that scale as data volumes increase - you get the idea.

Ab Initio sells through word-of-mouth, so you are unlikely to have heard of us, but our customers are some of the largest companies in the world and cover a wide range of industries including banking, retail, telecommunications, credit-card processing, transportation, healthcare, insurance and high tech.

Graduate Vacancies/Recruitment criteria/Application process and Deadlines: via email to UKcareers@abinitio.com, no deadline

Career Biography - Avinash Kolli

Job Title: Consultant
First Degree: BA/MSci, Natural Sciences (Cantab)
Higher Degree: DPhil, Materials Science (Oxon)

What do you do and how does the organisation you work for use data science?

I am a consultant at Ab Initio. The consulting teams (internal and field consulting) are the bridge between customers and the software developers and account managers. They are technically-adept, self-motivated individuals who want to work in a customer-facing role on practical problems.

We teach customers how to use the Ab Initio software stack to solve their business problems, and help them implement those solutions. Our core product is a programming platform that allows customers and consultants to write their own programs using a graphical environment and run them in parallel, allowing the solution to scale with the amount of data. A large part of our work is teaching customers how to use this platform to its best advantage, but might also include when another product is a better fit than writing their own, and how to use that. (This is not a sales job).

Typically this means teaching customers how to do things correctly from the beginning (ab initio) and includes programming and architecture advice, performance tuning, training, and debugging problems. This can often include both low-level analysis of other software, including operating systems; and high-level analysis of business requirements.

How did you get into the field? After my PhD in Oxford, I spent three years as a postdoc at UCL working on quantum effects in biological systems. In 2013, I made the transition to industry, joining the Ab Initio Internal Consulting team.
Career Biography - Luke Baker

Job Title: Consultant

First Degree: MEng, Chemical Engineering (University of Birmingham)

Higher Degree: PhD, Chemical Engineering (Cambridge University)

What do you do and how does the organisation you work for use data science?
I am a consultant at Ab Initio. The consulting teams (internal and field consulting) are the bridge between customers and the software developers and account managers. They are technically-adept, self-motivated individuals who want to work in a customer-facing role on practical problems.

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Typically this means teaching customers how to do things correctly from the beginning (ab initio) and includes programming and architecture advice, performance tuning, training, and debugging problems. This can often include both low-level analysis of other software, including operating systems; and high-level analysis of business requirements.

How did you get into the field?
During my Chemical Engineering PhD at Cambridge University, I discovered that I enjoyed solving software and data processing problems more than I liked chemical-engineering problems. I then applied for my job as an Internal Consultant for Ab Initio Software, who were happy to take me on, despite my relative lack of coding experience!

Amey Strategic Consulting

The Strategic Consulting team uses data science to enable the infrastructure industry to make better decisions under uncertainty. This involves understanding the value and performance of their physical assets so that we may advise how to improve performance, more effectively manage risk and ensure regulatory requirements are met. We work with our clients to solve the challenges of ageing infrastructure, increased service demand and making savings whilst customer expectations increase. We do all of this because we care about public services and creating better places to live, work and travel.

Graduate Vacancies/Recruitment criteria/Application process and Deadlines:
Phone interview, data exercise, face-to-face interview. Continual recruitment.

Internship Opportunities: Yes

Career Biography - Joe Collis

Job Title: Senior Consultant

First Degree: Mathematics (Cambridge)

Higher Degree: MSc Scientific Computation (Nottingham), PhD Applied Mathematics (Nottingham)

What do you do and how does the organisation you work for use data science?
There is great variety in the type of projects in which I have been involved since joining Amey. My first project was to develop a model for asset condition degradation and defect occurrence for a client’s assets based on images taken from a camera mounted on a helicopter. This provided the basis for us to propose changes to asset policy and analyse
investment strategies. Since then, I have worked on projects involving geographical clustering, natural language processing, and automatic change detection in telemetry data.

**How did you get into the field?** During my MSc, PhD and post-doc my main academic interest was the development of methods for quantifying uncertainty in numerical computations of physical and biological phenomena. In the final year of my post-doc I decided that I wanted to return to industry. I was attracted to my current role as it provides a good balance of technical work and client interaction, and enables me to apply mathematical and statistical techniques to tangible problems that affect each of us.

**Career Biography - Daniel Fisher**

**Job Title:** Senior Consultant

**First Degree:** Engineering (Cambridge)

**What do you do and how does the organisation you work for use data science?** I joined Amey after 2 years of working in engineering and asset management, and was largely motivated by the desire to be in a workplace full of cutting edge work and with great variety. I’ve been involved in projects for various mega-infrastructure clients such as Heathrow, Network Rail, and Severn Trent, each with their own specific challenges the organisation could respond to with bespoke tools and analysis. My extensive programme of Monte Carlo modelling and analysis for Network Rail formed the basis for the entire network’s route performance plan, and is now being used as best practice nationally. Most recently work has involved a mixture of data cleansing and dashboarding, and using mathematical modelling for design optimisation.

**How did you get into the field?** Mathematical modelling and vibration dynamics were a specialism during my engineering course, and this led naturally into data science. Working in a consulting environment enabled my professional life to continue pursuing a technical career while also ensuring I can work in teams, quickly hold great responsibility and have a wide variety of work month to month.

**Arm**

Arm® technology is at the heart of a computing and connectivity revolution that is transforming the way people live and businesses operate. From the unmissable to the invisible; our advanced, energy-efficient processor designs are enabling the intelligence in 86 billion silicon chips and securely powering products from the sensor to the smartphone to the supercomputer. With more than 1,000 technology partners including the world’s most famous business and consumer brands, we are driving Arm innovation into all areas compute is happening inside the chip, the network and the cloud.

With offices around the world, Arm is a diverse community of dedicated, innovative and highly talented professionals. By enabling an inclusive, meritocratic and open workplace where all our people can grow and succeed, we encourage our people to share their unique contributions to Arm’s success in the global marketplace.

**Graduate Vacancies/Recruitment criteria/Application process and Deadlines:**

Arm hires early careers talent on a rolling basis and we therefore encourage students to apply as soon as possible to ensure you have the best chance of being considered. **Internship Opportunities:** Data science, information technology, hardware engineering, software engineering, project management.
Career Biography - Bruno Contrino

Job Title: Graduate Data Scientist
First Degree: Mathematics
Higher Degree: MPhil Computational Biology

What do you do and how does the organisation you work for use data science? Our team works on several different projects at any one time. At present, I am looking into different ways of suggesting relevant documentation in order to deflect customer support cases.

Typical projects are: consulting, testing a hypothesis, analysing & visualising data to derive an insight that drives an action or decision, building a prototype app, or a proof of value for a larger scale project, building the community around data science in Arm through hackathons, training, etc.

My group focusses on projects that use the non-engineering data within Arm.

How did you get into the field? Data science was a major part of the Masters in Computational Biology. After working extensively with biological data, I wanted to move into the tech sector. I joined Arm due to its global presence and their plans to for data science to become an integral part of their business.

Career Biography - Stephan Waldert

Job Title: Staff Data Scientist
First Degree: MSc (Bioinformatics)
Higher Degree: PhD (Brain-Computer Interfaces)

What do you do and how does the organisation you work for use data science? Arm develops powerful and energy efficient technologies, including those enabling mobile machine learning applications.

These developments are based on ever more complex workflows producing vast amount of data, a few examples: find bugs when the number of possible states of a processor is higher than the number of atoms in the visible universe; assess the performance of a processor online when tests, in their ‘raw’ version, run years on a high-performance computer; distribute jobs with unknown memory requirements efficiently on a cluster with memory-limitations varying across the multiple compute units; automatically improve testing, compilers, etc ‘on-the-fly’; automatically tune different parameters of many units in a complex system for high performance, low power and small area; define optimal input sets for functional tests; derive optimal physical layout under varying constraints.

Our Data Science team provides data-centred support and consultancy to Arm engineers. Using data science/machine learning, we develop solutions for challenges as mentioned above; we extract actionable information from complex data, improve testing, reveal redundant processes, make processes more intelligent, etc. Our projects lead to an optimisation of Arm’s engineering workflows. In this role, our team enables data driven decisions, shorter delivery times and better technology.

My role as the team leader involves managing, developing, and hiring for the data science team; defining and supervising projects; engaging with stakeholder; establishing collaborations; enabling Arm to exploit their data; developing a data science strategy; exploring opportunities; in short, improvement of the efficiency and effectiveness of ARM engineering workflows through data science.

How did you get into the field? I studied Bioinformatics with majors in theoretical informatics, math and neuroscience, with a focus on using data science to decode neuronal signals and (trying) to understand how the brain works. As PhD student and later Senior Researcher at UCL, I’ve researched for more than 10 years on Brain-Computer
Interfaces. Data science has always been a major part of my research. A friend then introduced me to Arm and I became fascinated by the complexity, type and relevance of Arm’s data and by the company itself. Eventually, I quit my job at UCL for the role in Arm’s data science.

**ASI Data Science**

ASI Data Science are a London based firm who are experts in applying artificial intelligence to solve business problems. We have three interlocking parts to our business:

Consulting: expert data scientists and engineers working with your business to deliver business advantage and build capability.

Fellowship: industry leading 8-week training and placement programme to become a data scientist or data engineer.

SherlockML: a secure, powerful platform for data science, removing the need to create a new technical stack within organisations, that gives data scientist’s completely new tools to amplify their skills.

We run an 8-week training and placement programme to become a data scientist or data engineer. Applicants are PhD graduates and software engineers. The Fellowship is paid at the London Living Wage, equating to about £2000. The Fellowship runs 3 times a year, with applications for May now open. Apply directly at www.asidatascience.com/fellowship

**Internship Opportunities:** Please see www.asidatascience.com/careers

**Career Biography - Alex Moore**

*Job Title:* Analyst

*First Degree:* Physics MSci at Imperial College London

**What do you do and how does the organisation you work for use data science?** Data science is absolutely fundamental to everything that ASI does; whether it's teaching it, doing it, or providing the infrastructure to help other people do it.

**How did you get into the field?** A combination of technical and mathematical skills coupled with great communication skills are great assets to anyone starting a career in data science. We all keep learning!
ASOS

ASOS is one of the UK’s top fashion and beauty destinations, expanding globally at a rapid pace. With 75,000 product lines across womenswear, menswear, footwear, accessories, jewellery and beauty, we’re setting the pace in a worldwide fashion revolution. With around 2,500 new product lines being introduced each week, we’re ambitious and we know our stuff. We ship to 237 countries and also have specific sites targeting the USA, France, Germany, Italy, Australia, Russia and China, with offices in London, Sydney, New York, France and Germany.

Graduate Vacancies/Recruitment criteria/Application process and Deadlines: – Entry level masters/PhD data science positions. We recruit entry level data scientists all year though.

Internship Opportunities: 2019 Data science summer intern (masters level only). Applications open in September

Career Biography - Bryan Liu

Job Title: Data Scientist

First Degree: MEng Mathematics & Computer Science, Imperial College London

What do you do and how does the organisation you work for use data science? 
ASOS aspires to become the world's number-one online shopping destination for fashion-loving 20-somethings. With 15.4m active customers in 2017, 85k products online at any time, and billions of customer-product interactions; there are a lot of potential to leverage such data, together with applied machine learning research, to provide customers with a more personalised shopping experience. The data science team at ASOS runs the recommendation engine, and generate a number of data products that empower decision-making in marketing, retail, and even our own-brand clothing design.

During my time at ASOS, I have been involved in a number of projects, including the building of our Customer Lifetime Value prediction system (https://arxiv.org/abs/1703.02596), enabling more personalised customer engagement and contact strategies. I’ve also conducted research on parameter tuning in machine learning algorithms that take into account the stability of the predictions and training cost (https://arxiv.org/abs/1706.09865), allowing our stakeholders to use the predictions with confidence. Currently I am working on online controlled experiment design, so that ASOS will be able to measure the value of our data products and strategies with rigour.

How did you get into the field? I was looking for challenges that lie on the intersection of both mathematics and computer science, so that I can fully utilise what I have learnt during the four years of my degree. It was around that time when data science has emerged as a recognised field in both academia and industry, and interest in "artificial intelligence" has resurfaced. By happy coincidence the field requires the skillset I have more or less acquired, and I managed to see the huge impact the field could bring, so here I am.

Career Biography - Dr Gordon Blackadder

Job Title: Data Scientist

First Degree: MPhys (Theoretical Physics)

Higher Degree: PhD (Physics)

What do you do and how does the organisation you work for use data science? I work in Recommendations – learning from the past purchases of all our users to predict what a customer is looking for. This determines the order that products are shown to users and powers features such as “you might also like” and “your edit.”

The data science team at ASOS build models to predict how likely a user is to purchase a product they viewed and to predict the total value of their future purchases. These models
are transforming how we do marketing. We use computer vision to gain a deeper understanding of our products to uncover hidden patterns in customer purchases. We forecast popularity and trends to optimise supply chains so that the products customers are looking for are likely to be in stock. And we’re trying to solve the problem of sizing so that the products users buy are more likely to fit.

**How did you get into the field?** My research applied data analysis and traditional statistical inference to cosmological models, specifically using Markov Chain Monte Carlo. This sparked an interest in learning from data. I read several books on machine learning (I recommend “Introduction to Statistical Learning” James et al. (2013), as a good place to start) and did some non-physics ML projects which I published on GitHub.

**AstraZeneca**

**Advanced Analytics Centre, Biometrics & Information Sciences**

AstraZeneca is a global, science-led biopharmaceutical business and our innovative medicines are used by millions of patients worldwide. Biometrics & Information Sciences (B&I) is the home of late stage development biometrics activity at AstraZeneca, and we drive good design to generate the data needed for quality decision making on AstraZeneca’s late stage projects. The goal of B&I is to deliver value to the pipeline by excellence in delivery, improving decision making, and engaging and shaping the external environment whilst accessing and implementing innovative solutions.

Within B&I, the Advanced Analytics Centre is tasked with developing and delivering cutting-edge solutions to critical scientific and business issues in drug development, and we work on a wide range of problems including – but not limited to – data-driven approaches to finding patients for clinical trials, statistical methodology, and rigorous decision science.

**Graduate Vacancies/Recruitment criteria/Application process and Deadlines:** Discuss with HR partner who will be present on the AZ stand or follow up afterwards via email to: Justin.gimblett@astrazeneca.com

**Internship Opportunities:** A limited number of stipendiary summer internships may be available: please contact paul.metcalfe@astrazeneca.com to discuss.

**Career Biography - Alexandre Khae Wu Navarro**

**Job Title:** Senior Data Scientist  
**First Degree:** Engineering  
**Higher Degree:** PhD – Machine Learning

**What do you do and how does the organisation you work for use data science?** As a Senior Data Scientist in the Advanced Analytics Centre, I use machine learning to deliver innovative solutions in interdisciplinary projects ranging from the development of new technologies for analysing health data to improving efficiency in operations and clinical trials. I personally find it very exciting that I get to work with projects that ask for different sets of skills. This setting provides me with the perfect opportunity to learn, develop and apply novel data science methods and models. It also presents excellent opportunities to interact with people from multiple different backgrounds and learn softer, yet very important, skills.

My activities are just a few examples of how AstraZeneca is using data science to enhance its patient-centric approach, that is, putting patients first and assuring that the right medicines get to the right patients faster. It is a very exciting time for Data Science in pharma, as the entire sector is awakening to the importance of making use of the large volumes of data that it produces every day. AstraZeneca, in particular, is one of the companies leading this digital revolution leaning on its values of scientific innovation and entrepreneurship.
How did you get into the field? I joined AstraZeneca after a PhD in Machine Learning at the University of Cambridge, where I worked mostly with modelling and algorithm development. I also worked on several projects at the Alan Turing Institute, including an internship on a medical research project. Despite not explicitly undertaking any projects in the pharmaceutical industry, I always found the idea of using data to help provide better care and deliver the right medicines to patients to be an attractive application of machine learning and data science to problems that can directly improve people’s lives.

babylon

We are on a mission to put accessible and affordable healthcare in the hands of every person on earth. To achieve this, we’ve brought together one of the largest teams of scientists, clinicians, mathematicians and engineers to focus on combining the ever growing computing power of machines with the best medical expertise of humans to create a comprehensive, immediate and personalised health service and make it universally available.

babylon was included in WIRED’s 2016 Top 100 Hottest Startups in Europe and CB Insights 2017 Global ‘AI 100’ list. Fortune Magazine included babylon in their 2017 list of ‘50 Companies Leading the AI Revolution’, the only listed company using AI in healthcare delivery.

At babylon our people aren’t just part of a team, they’re part of something bigger. We’re a vibrant community of creative thinkers and doers, forging the way for a new generation of healthcare.

Graduate Vacancies/Recruitment criteria/Application process and Deadlines: We are always looking for talented individuals in the fields of machine learning and Bayesian statistics with particular focus on large-scale probabilistic inference, deep learning for NLP, conversational agents, knowledge graphs and symbolic reasoning, ML engineering at scale, among many others.

Internship Opportunities: We are open to internships, particularly for PhD-level students in quantitative disciplines.

Career Biography - Nils Hammerla

Job Title: Machine Learning & NLP lead

First Degree: Diplom Informatik (Computer Science, Dortmund)

Higher Degree: PhD Computer Science (Newcastle)

What do you do and how does the organisation you work for use data science? babylon is making extensive use of a variety of technologies, including large-scale probabilistic inference in graphical models, knowledge graphs, and deep learning for natural language understanding. This tech forms the core of our products, and we are actively engaged in research on cutting-edge techniques in ML, NLP, and AI in general.

In my role I represent the ML & NLP team (one of a number of science teams) to the rest of the business, plan the overall direction of the team’s efforts, and make sure they align with the objectives of the company. The rest of my time is split between research tasks with the rest of the team, reading papers, running experiments, and sometimes contributing to our production code-base.

How did you get into the field? I was first exposed to ML around 10 years ago during my ERASMUS year at UCL. This was just at the dawn of the renaissance of ML and it was clear that new techniques were about to redefine what we can achieve with ML. After completing my degree in Germany I joined a research lab in Newcastle, where I applied ML to a variety of healthcare applications during my PhD. After a short postdoc I decided to go into industry, where I now have the opportunity to do really interesting research with real-life impact.
Career Biography - Dan Busbridge

Job Title: Machine Learning Scientist

First Degree: Physics

Higher Degree: PhD Theoretical Particle Physics (Durham)

What do you do and how does the organisation you work for use data science?

bablyon is making extensive use of a variety of technologies, including large-scale probabilistic inference in graphical models, knowledge graphs, and deep learning for natural language understanding. This tech forms the core of our products, and we are actively engaged in research on cutting-edge techniques in ML, NLP, and AI in general.

I am a researcher in the Machine Learning team (one of a number of science teams) where I use deep learning techniques to improve our machine learning systems' understanding of text and medical information. I am primarily engaged in machine learning research, reading many papers in order to keep as up-to-date as is possible in this rapidly moving field. My research interests include (but are not limited to) distributed representations, reinforcement learning, machine learning on graphs, and differentiable computers. I also have a keen interest in easily reproducible science, and am driving the adoption of modern frameworks and tooling at Babylon to make this as easy as possible.

How did you get into the field?

Although I enjoyed developing particle physics theories during my PhD, I felt the need to apply what I had learned in a way that benefited people. With a reasonable grounding in statistics and programming, the transition into data science was straightforward. I enjoyed the problem solving of applying classical machine learning models to data, however, I missed the blue-skies aspect of theoretical physics. Around this time, TensorFlow was released. After playing around with it, I realised this allowed me to easily develop extremely weird models, and in some cases required significantly more creativity than I used when building particle physics theories. The ability to do this kind of work in deep learning research, but then be apply my models to practical situations is a sweet spot for me.

BCG Gamma

The Boston Consulting Group (BCG) is a global management consulting firm and the world's leading advisor on business strategy. We partner with clients from the private, public and not-for-profit sectors in all regions to identify their highest-value opportunities, address their most critical challenges, and transform their enterprises. Founded in 1963, BCG is a private company with 90 offices in 50 countries.

The BCG Gamma team creates competitive advantages for organizations by unleashing the power of signals hidden deep within large and complex data sets. We conceptualise, build, and deploy advanced analytics solutions that can transform the trajectories of organisations in 12 to 24 months. The data scientists/consultants on the BCG Gamma team identify transformational opportunities in areas ranging from marketing, risk assessment, and customer service to manufacturing, supply chain management, scenario simulation, and competitive intelligence. Find out more about us at: https://www.bcg.com/beyond-consulting/bcg-gamma/default.aspx

Graduate Vacancies/Recruitment criteria/Application process and Deadlines: BCG Gamma recruits at all seniority levels; interested candidates send their CV and cover letter to our online application tool: http://apply.bcg.com/GAMMA_EMEA_Positions. We are seeking strong candidates with advanced analytics experience to start an exciting consultant career within BCG Gamma. We are looking for profiles with a background in any area related to predictive analytics, machine learning, optimisation/operations as well as risk. Proficiency in at least one of the popular analytics languages (R, Python, MATLAB, SAS) is required and familiarity with others is a bonus. Other desired requirements are: advanced degree with excellent academic achievements in a field linked to computer
science / applied mathematics (e.g. statistics, machine learning, optimisation, or related data centric areas); relevant internships or up to 6 years of post-college industry or consulting experience is a bonus; excellent analytical skills and strategic thinking, creative problem solver; strong interpersonal credibility, reliability, and service mentality, high ethical standards. We hire all year round, there is no specific deadline.

Internship Opportunities: for final year Master and PhD students.

Career Biography - Iman Karimi

Job Title: Project Leader (Manager)

First Degree: BSc in Civil Engineering

Higher Degree: MSc in Earthquake Engineering, PhD Risk Management, MBA in Strategy

What do you do and how does the organisation you work for use data science? I am one of the BCG Gamma experts for deploying data science, esp. machine learning, for addressing our clients' problems and ambitions in various sectors.

In particular travel & tourism as well as insurance, telecom, consumer product and other sectors. I am also leading the charge to expand the Gamma team in London by finding talented data scientists who are not only technically proficient but also adept at considering the business aspects and packaging analytic solutions accordingly.

Data science is becoming ever more a core capability of the BCG in helping our clients to gain valuable insight, devise optimal solutions and how to operationalise them. BCG Gamma employs a four-step process that ensures measurable results: Build data ecosystems by aggregating, augmenting, and transforming internal and external sources of data; Extract signals and insights using advanced analytics techniques, including clustering, simulation, prediction, scoring, optimisation, and image- and natural-language processing; Field-test and measure the value created. Learn and adjust: Embed algorithms—including alerts, dashboards, and recommendation engines—into operating environments and transform processes with high-performance solutions. Overarching goal is to enable companies to achieve meaningful business results. Our real-world successes include: 80% improvement in revenue per customer through hyper-individualised marketing; $60 million increase in incremental sales through an analytics-driven retargeting of the sales force; 90% boost in segment growth through risk models; $125 million improvement in net present value through a fibre build-out at a leading regional telecom firm; 50% lift in profit through a footprint-resizing campaign leveraging loyalty data.

How did you get into the field? In 1999 I was introduced to field of artificial intelligence which led me to employ Neuro-Fuzzy systems to predict amplification of seismic waves for my MSc thesis and later my PhD thesis focused on developing the concept of fuzzy-probabilistic risk analysis. During this time I also got familiar with management consulting and since then have been an evangelist of deploying data science, esp. AI, for making better strategic, tactical or operational decisions in business. I followed this cause through my career in the risk analysis in insurance industry and since 2012 in other sectors, esp. travel & tourism, telecom and consumer products.
Cubica Technology

Cubica is a leading provider of research and development in machine learning, data science and computer vision/image recognition. We develop state-of-the-art algorithms, software and systems for defence, security and commercial clients that make a genuine impact on real world problems. Our technical team is comprised of 10 staff, 60% with PhDs in Mathematics, Computer Science and Data Fusion from leading universities. Our work involves developing proof of concept, low volume niche systems, using the very latest processing and software technology. Example applications are automatic video summarisation, face recognition; disaster response and state-of-the-art multi-sensor (e.g. radar, lidar and CCTV) intrusion detection systems. Example technical expertise includes deep learning, Bayesian inference, distributed data mining, probabilistic optimisation and natural language processing. We utilise open source tools as well as custom algorithms and are recognised as experts by our clients. Cubica has an open culture which champions innovation and collaboration.

Graduate Vacancies/Recruitment criteria/Application process and Deadlines:
We have ongoing open roles for candidates with interests and background in data science. As a specialist technical SME we shape our roles to strong candidates and are interested in talking to those who have a passion for the technology we work with, enjoy experimenting with cutting-edge technology and have a desire to help build solutions to make a real impact on the security of our society. We are looking for candidates with strong mathematical and/or coding backgrounds and a flair for development. Example roles within the company range from algorithm designers to full stack software engineers.
A career at Cubica provides a blend of unique and exciting projects, exposure to the latest development in data science, the opportunity to work with a highly educated and skilled team and the chance to contribute to solutions that help protect our society.

We operate a two-stage application process involving a 30 min telephone interview to establish the candidate’s background, skills, and career aspirations, followed by a face to face interview. These roles are open continuously.

Internship Opportunities:
We are currently offering up to three funded 2018 Summer Internships for exceptional candidates with a keen interest in algorithm development / data science / computer vision / software engineering. The internships are offered with a view to selecting candidates for full-time employment after graduation.

Career Biography - Russell Brandon
Job Title: Scientific Director, Founder
First Degree: BSc Mathematical Engineering
Higher Degree: MSc Applied Mathematics

What do you do and how does the organisation you work for use data science? As Scientific Director of Cubica Technology my key tasks involve identifying up-and-coming research in the field of data science and machine learning, and managing the development and implementation of down-selected technologies from prototype demonstration to integration into our software products.
Cubica Technology develops state-of-the-art data science tools for big/large-scale data and signal analysis applications. Cubica’s products are primarily operator assist tools such as enabling quick and efficient interrogation of images, videos and open source social media data such as Facebook/Twitter as well as managing multi-sensor security and protection systems (e.g. border protection).
Cubica employs the latest in machine learning technologies (e.g. deep learning), scalable processing architectures (e.g. Spark/Storm) and modern web-based GUI interfaces (e.g. REACT) to enable end-users to ask questions such as “show me all slam dunk footage in my archive” or “show me all suspicious activity in the last six hours”.

**How did you get into the field?** My career began as a Technical Consultant for Waterfall Solutions, a small enterprise that primarily worked with government and large defence and security primes as a provider of R&D services, taking the latest in academic research to prototype demonstrators and beyond. With an initial focus on computer vision and signal processing, my role evolved as customers’ priorities changed. With an increasing focus on managing big data, I naturally found myself applying the machine learning techniques I had learnt to new domains such as social media, document and image analysis.

**Facebook**

People are at the heart of every connection we build. We design products and deliver services that bring the world closer together — one connection at a time. The chance to move fast, be bold and build products and services with impact has never been greater. At Facebook, we have a saying that the journey is only 1% finished — join us as you begin yours. We have tons of exciting opportunities available for university grads and interns who want to help us in our mission to bring the world closer together.

**Graduate Vacancies/Recruitment criteria/Application process and Deadlines:** Data Scientist, London, 2018 Graduate: Are you passionate about Facebook’s product, analytics and technology? The Analytics team is looking for fast-moving analytics and data junkies who want to make an impact. Candidates will help own analytics for a particular product or business at Facebook and work with product managers and engineers to translate the analysis into meaningful impact to the business.

As a Graduate Data Scientist, you will apply your expertise in quantitative analysis and data mining to understand how our users interact with our core/business products, identify trends and opportunities, and influence the direction of the product team. To do this, we look for the following skills/qualifications: relevant prior experience in solving analytical problems using quantitative approaches, either in an internship of through education; experience in utilizing both quantitative and qualitative analysis techniques, and presenting data; experience in collaborating with individuals and organizations; the ability to communicate the results of analysis in a clear and effective manner; experience using data manipulation languages/tools, e.g. SQL (preferred), Python, R, Tableau, Advanced Excel, etc; BS, MS or PhD degree in a quantitative discipline (applied mathematics, statistics, computer science, physical science, engineering, or related field).

Please apply online: https://www.facebook.com/careers/jobs/a0I1200000LTXuPEAX

Application Deadline is 23 February 2018

**Internship Opportunities:** Data Scientist Intern, London, Summer 2018: Are you passionate about Facebook’s product, analytics and technology? The Analytics team is looking for fast-moving analytics and data junkies who want to make an impact. Candidates will help own analytics for a particular product or business at Facebook and work with product managers and engineers to translate the analysis into meaningful impact to the business.

As a Data Scientist Intern, you will experience a training period, after which you will own a project under mentorship of a Facebook Data Scientist. You will apply your expertise in quantitative analysis and data mining to understand how our users interact with our core/business products, identify trends and opportunities, and influence the direction of the product team.

The internship is a 12 week program that commences on 25 June 2018, full corporate housing is provided. To do this, we look for the following skills/qualifications: relevant prior experience in solving analytical problems using quantitative approaches; experience in
utilizing both quantitative and qualitative analysis techniques, and presenting data; experience in collaborating with individuals and organizations; the ability to communicate the results of analysis in a clear and effective manner; experience using data manipulation languages/tools, e.g. SQL (preferred), Python, R, Tableau, Advanced Excel, etc; currently enrolled in the penultimate year of a BS, MS or PhD degree in a quantitative discipline (applied mathematics, statistics, computer science, physical science, engineering, or related field).

Please apply online: https://www.facebook.com/careers/jobs/a0I1H00000LTdF1UAL
Application Deadline is 23 February 2018

Career Biography - Alexander Barickman

Job Title: Data Scientist
First Degree: Mathematics

What do you do and how does the organisation you work for use data science? I work on ensuring scaling out Facebook ads beyond Facebook through our Audience Network. The challenges I work on everyday are ensuring that the ads serving off Facebook are as valuable to advertisers as the ones on Facebook. Additionally, we have to balance that businesses rely on our ads and we need to help them to be successful just like Facebook is with ads. The final thing in consideration is to ensure our ads are creating great experiences for users, we need to constantly be balancing the advertiser value, publisher success and user experience of our ads.

How did you get into the field? I always enjoyed mathematics and wanted to have a career where I could apply my problem-solving skills. I found early on in my career I had a passion for explaining why things were happening in the products I worked on, I then figured out how to translate these insights into business actions to increase the value of our products.

Government Operational Research Service

Central Government is the biggest business in Britain. Operational Research (OR) specialists advise policy makers and managers on how to make the best possible use of public money, helping to formulate Government policy and find effective ways of putting it into practice. OR analysts use a range of analytical techniques, from detailed statistical analysis, simulation, and mathematical modelling through to facilitation and problem structuring so that they can explore problems and give objective advice. OR analysts help to answer vital questions such as: how can we measure and improve the quality of service in education, health, benefits and other public bodies? How much grant will be required next year to create new jobs in industry? How can we compare the relative value of Government expenditure on roads, health and education?

The Government Operational Research Service (GORS) is the umbrella organisation that provides management support to all members across central government.

Graduate Vacancies/Recruitment criteria/Application process and Deadlines:

There are two routes in to GORS. For both schemes, the eligibility requirements are: you must have (or expect to have in the next year) a 2:1 or higher in a highly numerate degree; or a 2:2 with relevant work experience, or a postgraduate qualification. To meet our definition of a highly numerate degree, at least half of your degree course must be from one or more of the following subjects: Maths, Physics, Operational Research/Management Studies, Engineering, Statistics, Econometrics or similar. You must be able to explain highly technical concepts in plain English.

The Main Stream is the route followed by most analysts. The next recruitment round expected January or February 2018. £21.5K – £46K (National), £25.5K - £50K (London) Flexible working, full time, part time or job share. Flexible start date.
The Fast Stream is a cross-Government development programme for future leaders of the Civil Service. You will receive bespoke training and development opportunities, and will be encouraged to move roles within and between departments throughout your career, giving you a breadth of experience. You'll be expected to progress to Principal OR Analyst within 3-5 years, after which you can aim to become a senior civil servant. Depending on departmental demand, there may be a recruitment round in spring 2018. Otherwise the next round will open in September 2018. Salary £27K - £32K (National), £29K - £37K (London)

Flexible working, full time or part time. Flexible start date.

Contact: gors.recruitment@hmrc.gsi.gov.uk
Apply at https://www.civilservicejobs.service.gov.uk (search for Government Operational Research Service)

Internship Opportunities: GORS offers both year-long sandwich placements and 10-12 week summer placements. You will be working on real OR problems, building both your technical and professional skills. To be eligible: You must be predicted a 2:1 or above in a highly numerate degree, where at least 50% of your modules (including your current year) are from the following subjects: Maths, Physics, Operational Research/Management Studies, Engineering, Statistics, Econometrics or similar.

For the summer placement, you must be in your 2nd year or above, and returning to university for your final year or postgraduate study after your placement.

Applications for summer placements in 2018 open in January and recruitment will open in autumn 2018. Salaries start at £18K pro-rata, depending on department and location. You will also receive annual leave and other benefits.

Contact: analytical.studentplacement@dwp.gsi.gov.uk
Apply at: https://www.civilservicejobs.service.gov.uk (sandwich placements), download a form at www.operational-research.gov.uk/recruitment/students

Career Biography - Jessica Ive

Job Title: Senior Scientific Officer, Home Office

Degree: Integrated Masters in Natural Sciences (Chemistry and Physics)

What do you do and how does the organisation you work for use data science? My team work as part of Home Office Analysis and Insight. We are a team of Operational Researchers who provide analytical support across the department. I work with a range of stakeholders in migration, policing and counter terrorism and provide analytical support directly to the department’s central strategy function. My wider team uses a wide range of analytical techniques, including forecasting, demand modelling, textual analysis, data matching and machine learning in addition to softer techniques such as problem structuring and decision analysis. Our team includes the Home Office Data Analytics Competency Centre which deliver analytics solutions at the heart of Home Office transformation. We work in partnership with business experts, other analysts and developers flexibly using open source tools. Coding and data wrangling skills are as important as softer analytical techniques such as communicating analysis effectively.

More broadly, the complexity and scale of problems in Government makes data science an important part of many departments’ work. Examples include the identification of fraudulent patterns in benefit claims, company tax returns and customs declarations, and predictive analytical models identifying companies at risk of insolvency before they become unmanageable. Large scale analysis of free text and the unstructured data emerging from modern public-facing IT systems is an increasingly important part of OR analysts’ work.
How did you get into the field? While at University, I wanted a role where I could apply my analytical skills outside of academia to real world problems. I came across GORS almost by accident online, and started at the Home Office after graduating. Since then I have progressed from junior to senior analyst. In just over 2 years here, I have found my roles hugely rewarding, mostly because there has been a huge breadth in both subject matter and analytical techniques I have used. Besides this, working in the Civil Service has been incredibly interesting – often involving contributing to high profile projects in the news.

THG (The Hut Group)

The Hut Group was founded on a desire to create an e-commerce system that could support multiple retailers. Today, our proprietary platform is used to manage over 100 websites, which we build, trade and market in-house. We are currently the world’s leading online sports nutrition, health & beauty destination with rapidly growing international operations and a unique end to end technology platform. Our immediate growth plans include significant investment in pioneering technology innovation, further acquisitions, international expansion and future IPO.

We seek bright, motivated and ambitious talent who can really help scale our business – in return we offer unprecedented career and leadership fast track opportunities, top of market compensation and material equity incentive (share options) for top performers. The Hut Group has a track record in promoting and developing graduate talent - often providing career progression way beyond that achieved or expected by your peer group.

Graduate Vacancies/Recruitment criteria/Application process and Deadlines: Data Scientist – Candidates should have an understanding of engineering principals, analytical train of thoughts, logical thinking and ambition. Recruiting all year round. Apply online, phone call then a 1-1 interview.

For more information on graduate jobs at THG see www.thehutgroup.com or to apply simply email your CV to Graduates@thehutgroup.com

Internship Opportunities: Yes

Career Biography - Nikos Pitelis

Job Title: Data Scientist

First Degree: Computer Science

Higher Degree: Computer Science

What do you do and how does the organisation you work for use data science?

THG is a multi-site ecommerce platform, selling high quality health, beauty, fashion and entertainment products globally. We use data science to help us make critical business decisions, to combat fraud, and to operate a 1million square feet warehouse efficiently. Data science is an incredibly powerful tool in e-commerce, 7,000,000,000 annual site clicks provides us with a huge dataset. This allows us to cluster our product & user groups and offer personalised services. We need data science to ensure that we can identify consumers in our key target markets, predicting their needs and motivations.
The Information Lab

Over the last five years, the team at The Information Lab has trained thousands of people to use Tableau and Alteryx. Our team includes 16 Tableau certified trainers, three Tableau Zen Masters and one Alteryx Ace – all people who regularly spend time helping others learn these great technologies. Whilst we’ve been developing this training capability, we have watched Tableau and Alteryx achieve spectacular growth – Tableau had less than 100 staff globally when we first partnered with them and today they have over 2000.

As Tableau and Alteryx have been growing fast, the largest companies in the UK have been adopting these technologies for increasingly ambitious projects – ambitious in both scale and complexity. As a partner of both Tableau and Alteryx, a key role is to help ensure this momentum continues. The Information Lab is playing a part in this by using our training experience to create the next generation of great data analysts.

Graduate Vacancies/Recruitment criteria/Application process and Deadlines:
Data Analyst / BI Analyst.
Data Analyst / BI Analyst / Consulting Analyst: Big Data, Tableau, Alteryx
Location: Central London. Salary: £30k per annum (and rising during fixed term contract)
Type of contract: Fixed Term Training contract – 2 years

The Information Lab has a simple mission: to help people make sense of data. We believe that companies which use data well will have better futures than those that don’t and have been helping clients such as Coca-Cola, Unilever, Easyjet and UBS do so by specialising in the leading products for data visualisation and data integration - Tableau and Alteryx - since 2011.

As a consultant of The Data School, your experience will far and away surpass that of the ‘average’ training contract. I mean yes, you will you be paid £30k per year to learn about data and technology from some of the greatest data experts across the world (including 3 Tableau Zen Masters and a handful of Alteryx ACEs). And yes, you’ll undertake this intensive and extensive training over 4 months in our fabulous Data School located just a stone’s throw from St. Paul’s Cathedral. And yes, you’ll even be given the chance to showcase your new found knowledge and skills with the some of the biggest and most recognised blue chip clients in the UK in a series of placements…

Because we don’t just teach technology for technology’s sake. And we don’t just teach in ‘any old way’. With support from your coaches and the wider team, you will learn broader skills about storing, managing and presenting data as well as personal skills to help boost your own confidence in becoming an exceptional consultant. And all within an environment which can only be described as extraordinarily inclusive and collaborative.

Our consultants come from all different walks of life and many had never heard of Tableau before they stumbled across u, see: https://www.thedataschool.co.uk/team. The one thing they do have in common however is that they are all passionate about problem solving. Especially problem solving with data and evidence. So if you share the same inquisitive nature and have a passion for getting to the truth by way of data, then get in touch as soon as possible to start your journey with us here: http://eepurl.com/bjvicT

Our next intake is scheduled to start in June 2018 however we are taking applications for places from anytime now. All those successful in their application, will be offered a two year fixed term contract within The Information Lab with a starting salary of £30,000 per annum, rising over the training period. We therefore can unfortunately only accept applicants for this role who have a right to work in the UK. If you applied before and weren’t successful? No problem. We like those who focus on continuous improvement, so if you’d previously applied and were unsuccessful but are still keen for a career in data, this is your opportunity look at what you’ve done, build on it and submit again.
Informetis Europe is a subsidiary of Informetis Company Japan, which itself is a spin-out from what was previously Sony Corporation’s R&D Energy Division. Some of our engineers were involved in developing the world’s first commercial artificial intelligence robot-dog (AIBO).

Our company’s vision is to enable consumers to minimise their energy bills through the use of simple, intuitive and cost effective technology solutions. The first solution from Informetis is a cloud based service which through the use of a ‘single clamp’ smart meter sensor provides consumers with an ‘itemised view’ of their electricity bill (much in the same way as an itemised bill from your mobile phone provider). We have many more interesting applications in the pipeline for the future – which is where we hope you will come in to help us on this exciting journey.

Graduate Vacancies/Recruitment criteria/Application process and Deadlines: We are looking for talented, motivated Machine Learning Algorithm Engineer and Cloud Development Engineer. As part of a multi-national development team, you will apply your machine learning knowledge or cloud technology knowledge as well as coding skills to help develop our unique form of NILM (Non-Intrusive Load Monitoring) technology.

Machine Learning Algorithm Engineer - this role is suitable for finalist undergraduates, postgraduates or PhDs ideally in computer science, information engineering or mathematics. Applicants will have a good knowledge of machine learning, especially, probabilistic modelling and Bayesian inference with experience in actual application development. We would also ideally like you to have machine learning algorithm coding and library development skills in Python and C/C++.

Cloud Development Engineer - this role is suitable for penultimate year undergraduates, finalist graduates or postgraduates in computer science or information engineering. Applicants will have a good knowledge of cloud technology, especially scalable web system, coding and library development skills in Python and C/C++.

Application Process: CV and cover letter to jobs@informetis.com by 31 March 2018

Internship Opportunities: We are looking for Machine Learning Algorithm Engineer intern and Cloud Development Engineer intern during the summer period.

Career Biography - Boruo Xu

Job Title: Machine Learning Algorithm Engineer
First Degree: BA Hons, University of Cambridge, 2013
Higher Degree: MSci, University of Cambridge, 2014 PhD, University of Cambridge,

What do you do and how does the organisation you work for use data science? We apply machine learning techniques to disaggregate electricity data from households. We identify electrical appliances running in the houses at real time. From the disaggregated results, we provide data visualisation services such as itemised electricity billing, and assisted living services.

How did you get into the field? My PhD study focused on the data analysis using machine learning techniques in the high energy physics. It was a natural move to become a machine learning algorithm engineer.
Career Biography - Egor Tiavlovsky

Job Title: Machine Learning Algorithm Engineer
First Degree: BA Hons, University of Cambridge, 2013
Higher Degree: MEng, University of Cambridge, 2014

What do you do and how does the organisation you work for use data science? We aim to develop adaptive algorithms which learn about the power consumption patterns in individual households in order to reduce their electricity bills and/or provide healthcare monitoring services.

How did you get into the field? My academic background was in energy engineering and then I complemented it with self-taught computer science skills with intention to develop intelligent energy systems. Informetis is a great company to follow this mission as it collects and analyses data in real world applications.

Linguamatics

Founded in 2001, Linguamatics is a world-leader in deploying innovative natural language processing (NLP)-based text mining for high-value knowledge discovery and decision support. We aim to produce software and solutions to help the pharma-biotech and healthcare industries speed up the drug-discovery cycle and improve patient outcomes.

Graduate Vacancies/Recruitment criteria/Application process and Deadlines: We do not have a specific graduate programme but we frequently employ graduates and welcome applications for positions that we have open. All our jobs are advertised on our website. www.linguamatics.com

Internship Opportunities: We welcome enquiries from graduates and if their skills and interests match projects that we are currently working on, we will consider offering an internship. Contact ukjobs@linguamatics.com with a CV and cover letter if you are interested in applying.

Career Biography - Hui Feng

Job Title: Application Scientist
First Degree: Bachelor’s in Biochemistry and Molecular Biology
Higher Degree: Master's in Data Science and Analytics; Ph.D. in Chemistry

What do you do and how does the organisation you work for use data science? As an application scientist, my responsibility is to work with customers, show them how to use NLP in dealing with "nasty" documents, and help them extracting high quality data from various text sources.

How did you get into the field? As a Ph.D. student, it was a daily task for me to spend a long time manually searching and reading literature, but the efficiency of information extraction was very low. After graduation, I heard of the term NLP, and became obsessed with the idea of using machine learning to enhance the efficiency in text information extraction. So, I decided to dive into the field and try my best to let more people enjoy the benefits brought by artificial intelligence.
Imagine being able to shop without the stress or hassle of fighting down Oxford Street on a Saturday. Metail is a fashion technology company making online shopping more fun for everyone.

Our technology enables you to try on clothes online meaning you never have to worry about the perfect outfit not fitting properly again. After inputting 3 basic body measurements, and in less than ten seconds, we introduce you to your MeModel and you're ready to shop. We make it easy and fun to discover new clothes while providing you with a personalised buying journey. Our patented technology creates two unique datasets at scale; human body size and shape, and 3D garment digitisation.

With over 10 PhD’s on the team, we’re a sociable bunch of geeks, bakers and MeModel-makers. Even though we’re based over two offices (London and Cambridge) we’re one team working towards one goal. Our mission is simple; making clothing fit for all... and we're working on it every day!

Graduate Vacancies/Recruitment criteria/Application process and Deadlines: We're hiring throughout the year with all our open roles listed on www.metail.com/careers. We're always on the lookout for smart, passionate people who believe in what we're doing. So even if there’s not a role on our site that matches your CV, don't be afraid to send it across.

Internship Opportunities: If you're interested in deep learning, computer vision or want to help in bridging the gap between mountains of user data, our summer internships can offer you the opportunity to learn from some great R&D, engineering and data science specialists. Our internship offerings go live on our website on the 1 May but speculative applications are welcome anytime. All our internships are paid, typically lasting between 8 to 12 weeks, during which there will be the opportunity to visit our office in East London.

Career Biography - Erika Nitsch

Job Title: Data Scientist Team Lead
First Degree: BA (Hons) Classical Archaeology
Higher Degree: DPhil (Oxon) Archaeological Science

What do you do and how does the organisation you work for use data science? We help brands and retailers find new ways to use our collective data to understand the role of body shape in fashion, which helps them design clothes better, make their supply chain more efficient and help customers find and buy clothes they'll love and keep. We use a combination of SQL and Python to model consumer behaviour from raw clickstream data and solve the complex e-commerce problems that face our retail clients. We also apply the latest research in computer vision, deep learning and artificial intelligence to digitize clothing efficiently.

How did you get into the field? I used to be an archaeological scientist, using isotope geochemistry to unravel complicated questions about ancient human behaviour. I enjoyed learning R and statistics to answer research questions when I was an academic, and I knew data science was the right combination of technical problem solving and analytical thinking for me. My first move out of academia was at as a data scientist for a financial tech company in 2015, before joining Metail’s data science team at the start of 2017.
NAVER LABS Europe

NAVER LABS Europe in France is part of NAVER LABS, an ambient intelligence technology company owned by NAVER Corporation, South Korea’s leading internet company. NAVER LABS researchers, engineers and designers work on future technologies including autonomous vehicles, 3D mapping and localization, mobility assistance, context-aware search, AR, dialogue and robotics. Their key areas of expertise are AI, machine learning, optimization, computer vision, natural language processing, data & process modelling and ethnography. LABS leads NAVER’s innovation in technology through products such as the AI-based translation app ‘Papago’, the omni-tasking web browser ‘Whale’, the virtual AI assistant ‘CLOVA’, the biologically-inspired robotic arm AMBIDEX, in-vehicle information entertainment system ‘AWAY’ and AROUND, the 3D indoor mapping robot. In France for 25 years, the team has an extensive partner network and help establish NAVER in Europe. They work with the NAVER / LINE doer community at Station F, the world’s biggest start up campus in Paris.

Graduate Vacancies/Recruitment criteria/Application process and Deadlines:
via http://www.europe.naverlabs.com/NAVER-LABS-Europe/Jobs

Internship Opportunities: via http://www.europe.naverlabs.com/NAVER-LABS-Europe/Internships

Career Biography - David Rozier

Job Title: Senior Scientist

First Degree: Applied Mathematics and Computer Science

Higher Degree: Ph.D. in Artificial Intelligence from De Montfort University, UK.

What do you do and how does the organisation you work for use data science? I connect NAVER LABS Europe and the rest of the scientific world. This includes establishing partnerships with academic and industrial stakeholders, identification of recruitment opportunities, coordinating relations with the NAVER/LINE start-up programme and the doer community at Station F. NAVER LABS Europe uses data science across most of its research and engineering in AI, machine learning, optimization, computer vision, natural language processing and data modelling applied to 3D mapping and localization, mobility, augmented reality, dialogue and robotics.

How did you get into the field? Having worked in computer science in both academia and industrial operations, I found that data science is a fascinating combination between highly complex computer science and how daily life functions in our society. This is the type of problem and the applications I found at NAVER LABS Europe.

Papercup

London start-up working in speech to speech translation. Funded by Entrepreneur First, we are working to make Speaker Adaptive Speech Translation a reality for the media and entertainment - so think your favourite YouTubers speaking in a language of your choosing! We are working very hard around the research and development of our products, and have the backing and interest from major media companies and leading academics in the field.

Graduate Vacancies/Recruitment criteria/Application process and Deadlines:
We are looking for machine learning engineers to join our team as one of our early employees. To apply, please email Jiameng at jiameng@papercup.ai

Internship Opportunities: We are open to both Undergrad and PhD internships, both of which would focus on the research of our technology or the development of our core products, depending on the interest of the successful applicant.
Career Biography - Jiameng Gao

Job Title: Chief Technology Officer

First Degree: BA & MEng Engineering, University of Cambridge

Higher Degree: MPhil Machine Learning, Speech and Language Technology, University of Cambridge

What do you do and how does the organisation you work for use data science? I work on the technical hiring, machine learning research and development for the company. This means I'm working and dealing with large amounts of speech data, of many different languages, on a daily basis. Modern speech processing and machine translation systems require knowledge of state of the art machine learning research, which is why it's important to stay up to date with developments in both research and industry.

How did you get into the field? I was first interested in language during my undergrad, when I worked on a UROP project on speech recognition. I took courses in machine learning during my 4th Year, and took on the MPhil the year after. Afterwards, I decided to work in a leading London tech start-up for a year. I was their first technical employee, working on traffic surveillance and security monitoring, using convolutional neural network frameworks for multi-object detection and tracking.

Pivigo

Pivigo is a data science marketplace and training provider based in London. Pivigo connects data scientists and businesses, and offers freelancing data scientists the opportunity to work on projects with companies in the UK, Europe and remotely. Pivigo also runs Europe’s largest PhD-to-Data Science training programme, Science to Data Science (S2DS), giving analytical PhD’s and MSc’s the opportunity to work on data science projects with companies, allowing them a direct career transition into data science roles. The five-week, full time programme runs on a campus in London, or virtually, a few times per year. Pivigo has already taken over 430 PhD’s and MSc’s through the programme, and completed over 110 projects with companies such as KPMG, Barclays, British Gas, M&S and Royal Mail, as well as many SME’s and start-ups.

Internship Opportunities: The next S2DS London programme will run in August, with a 2 April deadline (via the s2ds.org website). The next S2DS Virtual programme will run in October with an expected deadline in July. Paid project opportunities are made available regularly via the Pivigo marketplace.

Career Biography - Ole Moeller-Nilsson

Job Title: CTO at Pivigo

First Degree: MSci, Physics, Cambridge

Higher Degree: PhD, Astrophysics, Cambridge

What do you do and how does the organisation you work for use data science? I work as CTO for Pivigo, a data science scale-up. We run Europe's largest data science boot camp and help companies and individuals to get into data science and AI. As CTO I am responsible for the company's technical development and oversee the data science work we do. We have run over 100 data science projects in a great variety of industries - data science is what we do.

How did you get into the field? I left academia more than a decade ago and went into software development (no data science back then) but have always focused on numerical and mathematical work. When data science appeared I got very excited and interested in it and with AI taking more and more of a central stage there are more exciting opportunities than ever before.
Quantcast

Founded in 2006, Quantcast is the world’s largest AI-driven direct audience insights and measurement platform. As a global leader in artificial intelligence technology, Quantcast is using machine learning to drive human learning to help brands grow in the AI-era. Measuring over 150 million web destinations, Quantcast is the real-time pulse of the Internet helping marketers, publishers, agencies and consultancies understand, optimize and predict consumer interactions to drive business outcomes. Headquartered in San Francisco, Quantcast employs over 800 employees in 22 offices across 10 countries. We are committed to creating an inclusive and diverse environment where everyone can confidently be their authentic self.

Graduate Vacancies/Recruitment criteria/Application process and Deadlines:
Software engineer, new graduate, 2018. BS, MS or PhD degree in computer science or related field (graduation date before August 2018). Excellent command of one or more programming language in Java or Python. Strong understanding of algorithms and data structures https://www.quantcast.com/careers/a80dc6f7-f82a-4fc8-81cb-b5023e1e24ac/

Internship Opportunities: Software engineering intern 2018 (2 vacancies). Excellent command of one or more programming language in Java, Scala, Python, JavaScript; strong understanding of algorithms and data structures; pursuing a BS, MS or PhD degree in Computer Science or related field; graduation date between Dec 2018 and June 2020. https://www.quantcast.com/careers/6557e17c-7cc6-4244-b9eb-acd6dd57d438/

Career Biography - Peter Day
Job Title: Engineering Director, UK
First Degree: CompSci
Higher Degree: PhD in Machine Learning

What do you do and how does the organisation you work for use data science?
Director of Engineering at Quantcast London. As a leading ad-tech firm that uses machine learning to target advertising in real time machine learning is at the heart of everything we do at Quantcast – finding patterns in online user behaviour to deliver relevant content in the right moment. This is powered by massive datasets and cutting edge data science.

How did you get into the field? After gaining a PhD in machine learning and a brief career in academia, Peter spent 12 years working in the financial markets in a variety of roles in the quantitative finance sphere. Those included, low latency pricing, portfolio analytics (xVA) and culminating in being responsible for equity derivatives risk and pricing technology globally for UBS. More recently Peter has left the financial markets to rediscover his roots in machine learning and is currently the UK Engineering Director for Quantcast.

Career Biography - Daniel Harkin
Job Title: Senior Software Engineer
First Degree: CompSci

What do you do and how does the organisation you work for use data science?
Quantcast is a leading ad-tech firm. Machine learning is at the heart of everything we do. Finding patterns in online user behaviour to deliver relevant content in the right moment takes a huge amount of engineering as well as data science. Daniel is very much on the Engineering side of this, bringing 15 years of commercial experience, and 7 of large scale distributed systems. Quantcast (despite being a company you’ve likely never heard of), has a truly enormous amount of data, and budget for compute. The number of people relative to the size of the problems they are tackling means that people are encouraged to
work on whatever piece they find most interesting – this is excellent for both fun and productivity.

How did you get into the field? Daniel considers himself one of the first wave of “digital natives”, he has hacked banks (legally as a security auditor at EY), he has developed pricing and risk systems for J.P. Morgan and Goldman Sachs. He believes that the next generation of tech unicorns will all be businesses that consider themselves “machine learning first” companies. He joined Quantcast to work on difficult problems, and to be at the cutting edge of the field. He hasn’t regretted it for a second

**QuantSpark**

Hybrid data science / strategy consultancy startup

QuantSpark is a fast-growing firm that takes a hybrid approach to solving complex problems, combining the best of strategy consulting and applied data science. We have clients across the FTSE100, private equity, and governmental and inter-governmental organisations, such as the Australian government and the United Nations. Our disruptive hybrid approach allows us to deliver projects faster and more comprehensively than our traditional competitors.

**Graduate opportunities:** As an analyst at QuantSpark, you will learn the skills and abilities of a hybrid consultant, combining the activities of a business consultant and a data scientist. You will support our rapidly-growing team in our day-to-day activities including business development, data analysis, modelling, marketing, due diligence, advanced research, and writing thought-pieces. The exact mix will depend on your background and what we’re busy with at the time!

You could be working on projects such as decision-making analytics for large retailers, defence and intelligence analysis, pedestrian footfall behaviour, quantitative research, and open-source intelligence work. We welcome applications from anyone with a flair for structured analysis, a real passion for technology, and ambition to improve commercial and public-sector decision-making. We’re looking for people with a creative, robust approach to solving problems – as long as you have this, you could study any discipline.

**Internship opportunities:** We are happy to consider anyone who would like to intern at QuantSpark for a period of at least three months. For details on what interns do, please see the graduate opportunity description.

**Application process and deadlines:** please email recruitment@quantspark.com. Internships (and full time roles) are available throughout the year and we hire on a rolling basis. There is no deadline but we encourage candidates to apply as soon as possible.

**Recruitment contact:** recruitment@quantspark.com

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**Career Biography - Ben Rogers**

**Job Title:** Engagement Manager

**Degree:** Natural Sciences, Cambridge (St Catharine’s)

**What do you do and how does the organisation you work for use data science?** As a Manager I am responsible for the end-to-end delivery of our client projects. The thing I enjoy most about my role at QuantSpark is being able to work with our team of incredible talented data scientists, helping them to hone their technical skills and business acumen. We focus on hiring creative and inquisitive data scientists as our approach is all about solving commercial problems in the most efficient way possible. The projects we deliver at QuantSpark are immensely rewarding as our focus on data science and development means we don’t deliver one-off analyses that get long-forgotten, but rather we build long-lasting tools that get embedded in our clients’ ecosystem. It’s exciting to see our solutions deliver tangible improvements to the day-to-day operations and profitability of our clients, many of which are household names in the retail and telecoms sectors.
How did you get into the field? After graduating, I pursued a career in strategy consulting and joined a TMT boutique. By the end of my four years there I was managing data analytics and strategy projects for large telecoms clients and really enjoyed using data to understand and then improve complex business operations. In 2017, I joined QuantSpark to specialise further in the application of data science and analytics to real-world commercial problems and have not looked back since.

Career Biography - Gautam Kambhampati

Job Title: Analyst
First Degree: Physics (BSc)
Higher Degree: Physics (MSc) Imperial College London

What do you do and how does the organisation you work for use data science?
Being an analyst at QuantSpark means I spend most of my time studying and analysing large datasets and developing models which can be used to predict future changes. Typically these models are used to provide strategic insight for FTSE 100 corporations and high street names and help them to reduce costs and increase sales. It's incredibly rewarding to see the work you have done be put into practice and see the real impact you have had.

How did you get into the field? I applied to QuantSpark straight after finishing my master's degree. A physics degree is fundamentally a course in the development and application of mathematical models, and I have known that I would want to make use of the skills I gained during the degree in my future career. Applied data science is an excellent way to achieve this, the added consultancy component of our business model means that it is possible to follow through on your models and see them implemented.

Schroders Investment Management

As a global investment manager, we help institutions, intermediaries and individuals across the planet meet their goals, fulfil their ambitions, and prepare for the future. But as the world changes, so do our clients’ needs. That’s why we have a long history of adapting to suit the times and keeping our focus on what matters most to our clients.

Doing this takes experience and expertise. We bring together people and data to spot the trends that will shape the future. This provides a unique perspective which allows us to always invest with conviction. We are responsible for £418.2 billion (€476.3 billion/$543.3 billion)* of assets for our clients who trust us to deliver sustainable returns. We remain determined to build future prosperity for them, and for all of society. Today, we have 4,100 people across six continents who focus on doing just this.

We are a global business that’s managed locally. This allows us to always keep our clients’ needs at the heart of everything we do. For over two centuries and more than seven generations we’ve grown and developed our expertise in tandem with our clients’ needs and interests. Explore our interactive timeline to see how we’ve been shaping financial futures since our very beginnings. *as at 30 June 2017

Graduate Vacancies/Recruitment criteria/Application process and Deadlines: Data Insight Graduate opportunities open in September for our 2019 entry level programmes.

Intern Opportunities: Applications open in September for our 2019 Data Insights Internship roles.
Career Biography – Chris Cooper

Job Title: Data Consultant

First Degree: Mathematics

What do you do and how does the organisation you work for use data science?

I work for Schroders Data Insights Unit (DIU) which is focused on applying data science skills and technologies to investment research, enhancing and complementing the traditional ‘investor’ skills of our fund managers and analysts in all parts of the asset management business, including equities, fixed income and multi-asset. A core part of this is the introduction of ‘alternative data’ into investment research. These are big, unstructured or novel data sets that are not already provided through traditional channels such as research from investment banks or through the market terminals that every investment analyst or fund manager already has on their desktop.

The quantity of information available for investment research purposes is increasing at such a rate that traditional industry practices and skillsets are unable to absorb and process it. Global trends in digitalisation, social media, open data and technology are all creating vast streams of alternative data that are often highly unstructured; however they contain valuable and often unique insights. The Data Insights team aims to find these new and potentially unorthodox datasets, extract the rich, hidden information they contain, and use their expertise to enhance traditional fundamental research.

How did you get into the field? After Cambridge I looked for a job combining technical skills and more general management style consultancy. This led to a small company involved in building databases, the pipelines to fill them up, and increasingly the analysis of the resulting data. I found that aspect particularly interesting and jumped at the opportunity to join a team at Schroders with extensive experience in the area.

Tessella

Tessella is the Analytics World Class Centre of the Altran Group. We are innovative scientists and engineers who enjoy solving the real-world technical challenges faced by industry-leading companies at the forefront of science and technology. Using a combination of deep domain knowledge and technical expertise, including data science, analytics and software engineering, we work with our clients to find new ways to unlock the value held within their data, enabling them to make better-informed business decisions.

We are looking for enthusiastic science, mathematics and engineering graduates and postgraduates to join us. You will have the opportunity to apply the knowledge you have gained during your studies and use a range of skills to create, develop and deliver solutions that truly make a difference in the world. You will be expected to quickly learn new domains and technologies and apply innovative thinking and transferable skills to solve new challenges.

Graduate Vacancies/Recruitment criteria/Application process and Deadlines:

We recruit Data Scientists / Software Developers throughout the year. You should have:

BSc, MSc or PhD in science, mathematics or engineering.
The ability to interpret complex data using a variety of analytical, statistical or machine learning techniques.
Software development skills in one of: Java, Python, C, C#, C++, R, Matlab.
Apply online at http://jobs.tessella.com or by email to jobs@tessella.com
Tesco Supply Chain Transformation

Working within our team of Data Scientists, Analysts and Change Managers you’ll provide insight and drive strategic projects to improve how our business operates. Every day, 11 million customers visit Tesco stores. Here in the Supply Chain Transformation team we work to anticipate the needs of all of them to make sure that they can get what they want from us.

Did you know that a 10 degree rise in temperature means we sell 300% more barbecue meat and 50% more lettuce? We use this relationship to make sure we order products in the right amounts to give our shoppers what they want while minimising the amount that goes to waste. Based on our data-driven insight, collaboration with Tesco colleagues and in partnership with our suppliers, our projects make significant changes to the UK’s biggest retailer. Come join us at the Tesco Head Office in Welwyn Garden City.

Graduate Vacancies/Recruitment criteria/Application process and Deadlines: Our changes can really be seen: as well as measuring benefits in the office, we see them in our stores and throughout the Supply Chain. We’re looking for keen problem-solvers who can demonstrate strong business acumen and drive to make business changes. Engineering / Mathematics / Physics / Chemistry / Computer Science / Similar Scientific backgrounds are ideal but all degree disciplines considered.

Send your CV to consulting.careers@uk.tesco.com or apply via the Tesco Careers website by searching for ‘Supply Chain’ amongst UK roles. Apply asap for the first set of interviews this Spring, continuous recruitment.

Internship Opportunities: Closed for this year, several 10 week opportunities for undergraduates to experience a role within the team working on a real project.

Career Biography – Shona Gibson

Job Title: Senior Analyst

First Degree: BA Mathematics (Clare College)

What do you do and how does the organisation you work for use data science? My team use data-driven insight to make tangible changes within one of the largest Supply Chains in the world, realising significant business benefits and reducing food waste.

We’re enabled by Terabytes of data at our fingertips, which has allowed us to: analyse 500m price reductions in stores every year to calculate the optimal reduction to prevent waste; run regressions on sales and weather data to understand how individual weather factors like temperature affect how much we sell; create simulations to predict impacts of system changes and using the results to gain business sponsorship for projects.

Furthermore, we provide insight to the wider business to support Directors and stores to improve their operations. Each year we deliver over £100m of cost savings. Personally, I’ve worked on several projects within the Ordering team, allowing me to develop a wide range of skills from technical coding and Data Science to an understanding of the wider retail business and its drivers. My first project was to develop the Customer Favourites measure – a way of determining what customers can and can’t get while shopping based on statistical analysis of till sales. Accurate data is imperative to a retail business and my analysis of our stock records has enabled stores to improve processes and reduce wastage. I’m currently working on improving the accuracy of our orders, which will improve the whole experience for both suppliers and customers. A particularly interesting aspect of this is to see the effect of our work end-to-end through the Supply Chain.

How did you get into the field?

I knew little about Supply Chain whilst at university, nor what I wanted to do with my career. I was looking for something intellectually challenging, using my mathematical ability to make real world impacts. Representatives from Tesco Supply Chain at a
university careers fair sparked my enthusiasm by describing the way the team apply science to the supply chain, resulting in me accepting a graduate job within the department. It’s such an interesting role with great development opportunities. I’ve not looked back since, currently in a role also involving sharing my Data Science insight with other business functions.

**Career Biography – Martin Hong**

**Job Title:** Senior Analyst

**First Degree:** BA Mathematics and Philosophy (Kings College London)

**Higher Degree:** MSc Theoretical Physics (Kings College London)  
MSc Computational Statistics and Machine Learning (University College London)

**What do you do and how does the organisation you work for use data science?** The Transformation team work on a variety of projects that generally involve improving either systems or practical processes. Projects are aimed at improving the efficiency of the Supply Chain and quantifying the resultant cost savings. I work in a small team who are exploring how we can use machine learning within Supply Chain based projects. My work has mainly focused on improving the systems we use to automate sections of the Supply Chain. Currently I am exploring ways to predict the accuracy of sales forecasts before we know the sales and correcting errors in the stock record by using historical patterns in our data.

One of the aspects of my job I value the most is the need to continually develop new skills. The tools we use have changed over the last few years; I now work mainly in Python, with some projects in MATLAB. From a modelling perspective, we often settle on tree based models for a given project, due to their relative simplicity and speed of training, although we have recently been experimenting with neural networks for some applications.

**How did you get into the field?** I joined the team after university, I wanted to find a job that would allow me to make use of some of the skills I’d developed whilst in education. Discussions with members of this team at a recruitment day piqued my interest so I joined shortly after. In my early days at Tesco I developed an interest in machine learning and so in 2016 went to UCL to study for their MSc in Computational Statistics and Machine Learning. I now get the opportunity to apply that knowledge to future projects - it was a great way to expand my knowledge.

**Thought Machine**

The technology underlying our banking systems is decaying. It is expensive to run, unreliable, insecure and so out dated that bank customers never get anything like the quality and richness of service they deserve. Thought Machine is changing all this. With a world class team expert in cloud computing, machine learning, finance, design and app building, we are creating the banks of the future.

**Graduate Vacancies/Recruitment criteria/Application process and Deadlines:** We are currently searching for back end engineers and big data engineers to join our team. You can find our live vacancies here [https://thoughtmachine.workable.com/](https://thoughtmachine.workable.com/) we are constantly growing and will be advertising new vacancies throughout 2018.

**Internship Opportunities:** We have limited internships opportunities, considered on a case by case basis.
Career Biography - Ed Steele

**Job Title**: Machine Learning Engineer

**First Degree**: Mathematics (Oxford)

**Higher Degree**: Mmath (Oxford); MSc, Computer Science - Machine Learning

Imperial College London

**What do you do and how does the organisation you work for use data science?** I work on the Treasury and Data Analytics team, building systems to handle banks’ Treasury functions, and data analytics operations. Modern bank operations rely heavily on advanced data manipulation and analysis. VaultOS natively supports advanced data analytics across every aspect of bank operations; Treasury, regulatory reporting, financial modelling, credit risk, fraud detection, bank employee or user-facing analytics. We make use of best-of-breed technologies for the whole data stack; from Extract-Transform-Load operations (streaming pipelines) to ML/inference tasks, alongside our custom-made tools.

**How did you get into the field?** I wrote my second Masters thesis at Imperial, supervised by the Director of Research at Thought Machine, on predicting individuals’ spending with Gaussian processes. Following this, I have been working at Thought Machine for 2 years.

YouGov

We don’t just collect data, we connect data. YouGov is an international data and analytics group. Our value chain is a virtuous circle consisting of a highly engaged online panel, innovative data collection methods and powerful analytics technology. From the beginning we had one simple idea: the more people are able to participate in the decisions made by the institutions that serve them, the better those decisions will be. We are a global online community for millions of people, and thousands of organisations, to engage in a continuous conversation about their beliefs, behaviours and brands and provide a more accurate portrait of what the world thinks.

**Graduate Vacancies/Recruitment criteria/Application process and Deadlines:**
Graduate schemes recruited via assessment centre format, check YouGov website for dates as they vary depending on area of the business.

**Internship Opportunities:** check website for options and application information.

Career Biography – Alex Walther

**Job Title**: Data Scientist

**First Degree**: MSc Computational Neuroscience, Cambridge

**Higher Degree**: PhD Computational Neuroscience, Cambridge

**What do you do and how does the organisation you work for use data science?** Data scientists at YouGov develop algorithms for the analysis of large and complex datasets to answer market research questions. Our extensive data (120,000 data points from 250,000 panelists in the UK alone) are collected with a variety of methods (e.g. online polling, Facebook likes, Twitter handles, ratings from our website, passive web usage tracking). To distill insight from them, we develop and maintain analysis tools (e.g. for in-depth panelist profiling, see https://yougov.co.uk/profileslite#/) and in-house data processing pipelines (mostly written in Python, R, and SQL).

**How did you get into the field?** During my Masters and my PhD, I became enthusiastic about working with learning algorithms which identify generalizable patterns in various kinds of data and building tools to deploy them. The rapid and exciting evolvement of data science as a profession in its own right made it possible for me to pursue the most interesting parts of this interest — applied machine learning and software development — as a full-time job.