Robert Dargavel **Smith**

Data Scientist & Quantitative Analyst

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What motivates me: Creating value for businesses by breaking down silos & challenging the status quo

Skills

- Management of complexity, uncertainty & change.
- Experience of managing, leading & getting the best out of teams.
- Effective communication of highly technical concepts.
- Capacity to become self-taught recognized expert in many fields.
- Creative, intellectually curious and persistent.
- Implementation of mathematical models for business.
- Very strong programmer in Python and C/C++.
- Bilingual in English and Spanish.

Work Experience

IHS Markit *London, UK*

Head of Data Science, ED *April 2020 - Present*

- Reporting directly into Executive Vice President group CTO of IHS Markit (~16,000 employees).
- Managing team of 20 Data Scientists based in London, Gdansk and Bangalore and projects using NLP, classic ML and Deep Learning.
- Working with FS, Automotive, Maritime & Trade and Energy to identify & engage with business opportunities that have significant ROI potential.
- Projects included: time series prediction with RNNs, prediction of oil & gas well production, NER and summarization of reports, propensity of clients to buy a car, trade forecasting, GHG emission estimation.
- Adapted / adopted tools to improve the way of working, collaboration and the quality of our deliverables.

Santander *Madrid, Spain*

Head of CVA Trading Desk, MD *May 2011 - March 2020*

- Responsible for front office P&L management of credit risk of derivative contracts with counterparties of the bank.
- Started function from scratch, managing change across all affected areas & locations and transforming regulatory requirement into opportunity.
- Convinced CTO and CRO of need to rebuild enterprise wide credit risk system, securing >€10m budget.
- Frequently invited to speak at industry conferences in Europe, USA & Asia.

Santander *Madrid, Spain*

European Head of Rates & Credit Quantitative Analysis, MD *Oct. 2007 - May 2011*

- Transitioned team from producing models for structured credit products to developing models to manage credit risk in derivative contracts.
- Re-purposed existing valuation engine to also calculate exposure profiles, adding value to a new sector of internal clients.

Santander *Madrid, Spain*

Global Head of Products, MD *Nov. 2006 - Oct. 2007*

- Traveled extensively across Latin America & Europe, managing differences in culture & markets in order to cross-fertilize product capabilities.
- Prioritized development of product & valuation model adaptations to local markets.

Santander *Madrid, Spain*

Global Head of Quantitative Analysis, MD *Jan. 2001 - Nov. 2006*

- Convinced Global Treasurer and CRO of need for front office quantitative analysis team to respond to client demand for new products.
- Starting from scratch, built and led team of over 20 people from more than 10 nationalities based in Madrid, London & New York.
- Significantly reduced time-to-market by changing team's way of working from building VB prototypes to being owners of production C++ code.
- Worked closely with traders to develop innovative models allowing for the commercialization of highly customized products.

ABN Amro *London, UK*

Quantitative Analyst *1995 - Jan. 2001*

- Moved from IT to Quantitative Analyst after impressing department head with derivation of formula for valuation of double barrier options.
- Accelerated product development cycle by designing and implementing a pricing & valuation engine with a product description language.

Harlequin (now Global Graphics) *Cambridge, UK*

Software Engineer *1993 - 1995*

- Developed device drivers for commercial printing presses.
- Achieved 50% speedup by rewriting Windows OS level functions.

Education

MBIT School - Madrid Business Inteligence Technology *Madrid, Spain*

Advanced Machine Learning Expert Program *2019 - 2019*

- Created a music recommendation system by training a Deep Convolutional Neural Network with audio samples from Spotify playlists. Deployed at `https://deej-ai.online` and on iOS & Android using Python (TensorFlow & Keras), ReactJS, React Native, Kubernetes & Helm. GitHub repos: `https://github.com/teticio`
- Awarded maximum grade and was invited to be a Professor in subsequent editions of the course.

Oxford University *Oxford, UK*

B.A. First Class Honours in Mathematics *1990 - 1993*

- Awarded Pembroke College prize for Mathematics.

Publications

An Almost Exact Simulation Method for the Heston Model *Journal of Computational Finance*

Author *2007*

- Article in peer-reviewed journal.

Landmarks in XVA: From Counterparty Risk to Funding Costs and Capital *Risk Books*

Co-author *2016*

- Chapter on "Managing XVA in the Ring Fenced Bank".

Extracurricular Activity

MBIT School - Madrid Business Intelligence Technology *Madrid, Spain*

Professor in Advanced Machine Learning Expert Program *2019 - 2020*

- Specialising in Deep Learning and NLP (Bert, GPT). Bilingual Jupyter notebooks: `https://teticio.github.io/aventuras`

Universidad de Alcalá *Madrid, Spain*

Professor *2013 - 2020*

- Teaching classes in Masters of Quantitative Finance and in Masters of Artificial Intelligence.

Oxford University & Bangor University *Madrid & London*

Mindfulness Instructor *2017 - Present*

- Founded small business, giving 8 week Mindfulness courses to the general public.
- Created and delivered a program for people at risk of social exclusion.
- Lead weekly sessions in Santander, having built up a list of 200 interested colleagues by word of mouth.
- Developed and facilitated Building Resilience with Mindfulness course for colleagues in IHS Markit.

HiTop Records *Madrid, Spain*

DJ Producer *2001 - 2008*

- Produced 12" single, included on BBC Radio DJ Gilles Peterson compilation.
- Live radio and club DJ (Madrid, London, Lisbon & Belgrade).

Sports

Athlete

- Bronze medal in Junior World Rowing Championships (1990).
- Completed Ironman Triathlon (2011).
- Personal Best in New York City Marathon (2013) of 2:47.

References

Available on request.