

# Robert Dargavel Smith

DATA SCIENTISTS & QUANTITATIVE ANALYST

147 Gladstone Road, London SW19 1QS, UK

☎ +44 (0)7922 362958 | ✉ [teticio@gmail.com](mailto:teticio@gmail.com) | 📱 [teticio](#) | 🌐 <https://goo.gl/TV7ovr>

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

## Skills

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- 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

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### IHS Markit

HEAD OF DATA SCIENCE, ED

London, UK

April 2020 - Present

- Responsible for leading and growing team of Data Scientists.
- Work with SMEs across industries (Financial Services, Capital Markets, Automotive, Maritime, Aerospace, Energy, ...).
- Leverage IHS Markit's wealth of data to provide actionable insights to clients.
- Reporting directly into Executive Vice President Chief Technology Officer.

### Santander

HEAD OF CVA TRADING DESK, MD

Madrid, Spain

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

EUROPEAN HEAD OF RATES & CREDIT QUANTITATIVE ANALYSIS, MD

Madrid, Spain

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

GLOBAL HEAD OF PRODUCTS, MD

Madrid, Spain

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

GLOBAL HEAD OF QUANTITATIVE ANALYSIS, MD

Madrid, Spain

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

QUANTITATIVE ANALYST

London, UK

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)

SOFTWARE ENGINEER

Cambridge, UK

1993 - 1995

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

## Education

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### MBIT School - Madrid Business Intelligence 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> using Python (TensorFlow & Keras), Flask, PHP, Javascript and Bootstrap.

### Oxford University

Oxford, UK

B.A. FIRST CLASS HONOURS IN MATHEMATICS

1990 - 1993

- Awarded Pembroke College prize for Mathematics.

## Publications

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### 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

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### MBIT School - Madrid Business Intelligence Technology

Madrid, Spain

PROFESSOR IN ADVANCED MACHINE LEARNING EXPERT PROGRAM

2019 - Present

- Specialising in Deep Neural Networks.

### Universidad de Alcalá

Madrid, Spain

PROFESSOR

2013 - Present

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

### Oxford University & Bangor University

Madrid, Spain

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 the workplace, having built up a list of 200 interested colleagues by word of mouth.

### HiTop Records

Madrid, Spain

DJ PRODUCER

2001 - 2008

- Produced 12" single, included on Radio 1 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

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Available on request.