

Aditya Ravuri

STATISTICIAN · DATA SCIENTIST

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Education

University of Cambridge

MPHIL IN MANAGEMENT

Cambridge, UK

Oct. 2016 - Jun. 2017

- Commendation (70% - top 25%). | **Audits:** Measure Theory, Philosophy of Science | **Focus:** Strategic Valuation (top prize), Economics.
- Published in the CU AstroSoc's astrophotography magazine.

Heriot-Watt University

BSC HONS IN ACTUARIAL SCIENCE

Edinburgh, UK

Sep. 2013 - Jun. 2016

- **Awards:** Distinction (83%) (top 3%), CT1-CT8, Volunteering - Bronze (ChessSoc President, Union Exec, Mentor). Graduated at age 18.
- **Focus:** Statistics, Quantitative Risk Management, Mathematical Finance. **Project Areas:** GARCH models, copulas, extreme value theory, stochastic calculus, liquidity risk, economic scenario generators and advanced statistical inference. Published in the actuarial magazine.
- Awarded Highest Honors for performance on the HBX: CORE & Harvard Summer School - subjects included analytics and economics.

Skills

Programming	R, Python, C & C++ (basic), SQL (basic)
Frameworks	Stan, JAGS, PyMC3, Keras, Tensorflow, Spark, SciPy Suite, data.table
Web Apps / Viz	GGPlot, Shiny, Dash, Plotly, Flask (basic)
Others	AWS, Git, LaTeX, Bash scripting, QT (basic)

Projects

Webpage	falmity.com I write about some of my personal projects (e.g. conditional density estimation using Gaussian mixtures, modelling high-dimensional dependent Bernoulli distributed RVs using RBMs), interesting ideas I've had or encountered (e.g. on solving Bayesian inverse problems) and code for problems I keep running into (e.g. derivatives of Gaussian processes and the representation of non-linear functions using kernels and basis functions).
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Experience

Barclays

QUANT ANALYST + DEVELOPER, AVP

London, UK

Dec. 2018 - Present

- Designing and implementing large-scale statistical models for forecasting the evolution of portfolio balances, accounting for individual behavior. Built models for term deposits, loans, savings and mortgage applications.
- In three cases (involving data cleaning, data structure manipulation and Monte Carlo simulation), reduced execution time of critical model components from days to seconds using Spark and C++.

Sciemus

DATA SCIENTIST + STATISTICIAN

London, UK

Sep. 2017 - Dec. 2018

- Was involved with building and maintaining end-to-end tech-related solutions, particularly in the space, weather and power business areas. This involved data cleaning, analysis, modelling, documentation, web-app development and deployment, basic server and database maintenance, research and development of infrastructure (e.g. aiding development of a distributed computing cluster on AWS).
- On the modelling side, I've worked with GLMs for assessing risk probabilities, Hidden Markov models & sparse Gaussian Processes to model rates based on large-scale weather data, simple Random Fields in the form of Convolutional NNets to model rainfall data, importance sampling & subset simulation to accelerate simulations, fuzzy logical risk models, basic prior elicitation & associated Jacobian adjustments.

Coloplast

DATA SCIENCE INTERN

Peterborough, UK

Jul. 2017 - Aug. 2017

- Aided implementation of a seasonal time series forecasting model. Introduced loss functions, splines and linear filters to the implementation, linked model components, fit an ARMA model to the resultant error series and automated model fitting.

Jaguar Land Rover

QUANT MANAGEMENT CONSULTANT

Cambridge, UK

May. 2017 - Jun. 2017

- Modelled the contribution of Jaguar Land Rover to the UK economy in a highly collaborative setting. Conducted original research on improving the accuracy of multipliers within input-output theory by utilizing internal supply chain data. Highly commended for the work and presentation.