

# Aditya Ravuri

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## Education

### MPhil in Management, Cambridge University

Oct '16 – Jun '17

Commendation (70% - top ~25%) | **Audits:** Philosophy of Science, Measure Theory | **Focus:** Strategic Valuation (top prize), Economics

### BSc Hons in Actuarial Science, Heriot-Watt University

Sep '13 – Jun '16

Distinction (83%) (top 3%), exempted from IFoA CT1-CT8. **Focus:** Statistics, Quantitative Risk Management, Mathematical Finance

Received top prize in every research & statistical project. One project was selected to be published in the university magazine. Graduated at age 18.

Awarded Highest Honors for performance on the HBX: CORE & Harvard Summer School in analytics, economics & physics.

Bronze Volunteering Award (for student mentoring and acting as an Executive & President for the Union & its Chess Society)

Projects areas included GARCH models, copulas, EVT, liquidity risk case-studies, economic scenario generators and advanced statistical inference.

### IGCSE & GCE A-Levels, Cambridge

Feb '11 – Jun '13

A\*A\*A\*Ab in A-Levels (670 UCAS Points) across the Sciences, Mathematics, Applied ICT & English

A\*A\*A\*ABB in IGCSE across the Sciences, English, Mathematics, French & ICT (done in 3 months)

Awards: top student, 3<sup>rd</sup> in 2012 U16 Zambian Chess Nationals, bronze DofE and a regional medal for research on accessible clean fuels.

## Work Experience

### Quant Developer (Assistant VP), Barclays

Dec '18 – Present

Involved with building large-scale behavioral models for asset & liability management (as part of the quantitative analytics group).

### Data Scientist & Statistician, Sciemus

Sep '17 – Dec '18

Involved with building and maintaining end-to-end tech-related solutions, particularly in the space, weather and power business areas. This involves data cleaning, analysis, modelling, documentation, web-app deployment, basic server and database maintenance, research (e.g. to accelerate computations using an AWS based distributed back-end, or by using MCMC search methods) and library maintenance (for plotting & quick sampling).

On the modelling side, I've worked with GLMs, Hidden Markov models, Gaussian Processes (including sparse approximations), Random Fields, Convolutional NNets, VAEs, time-series estimation, non-parametrics, importance sampling, fuzzy logic, basic prior elicitation and associated Jacobian adjustments for particular small-dataset problems and subset simulation. Also involved with research around GPs, SDEs and differential equations.

### Data Science Intern, Coloplast

Jul '17 – Aug '17

Aided the implementation of a business time series forecasting model by building loss functions, splines and linear filters, linking various model components, fitting seasonality, covariate forecasting and fitting ARMA models to the resultant error series using R & Excel.

### Management Consultant, Jaguar Land Rover

May '17 – Jun '17

Delivered & presented the paper below as part of a team-based consulting project - 2<sup>nd</sup> in class. My presentation was highly commended.

## Reports

**Ravuri A. \***; Ball A.; Schilling K. S.; Philips H.; Guillet M. (2017) "Modelling the Contribution of Jaguar Land Rover to the UK Economy" for JLR.

\* conducted original research on improving the accuracy of multipliers in input-output theory by utilizing internal supply chain data.

## Technical Skills & Awards

**OSs:** Linux, OSX, Windows

**Frameworks:** Keras, Tensorflow, Ms Office, Git, Scipy, Plotly Dash, (@Risk, Flask, PyMC3)

**Languages:** R, Python, Stan, JAGS, (basic knowledge in: C, SQL, Octave, RShiny, PyQT)

**Other:** Machine Learning methods, Amazon AWS, Jupyter, Markdown, MathJax, LaTeX

**Scholarships:** University of Melbourne (\$45,000), Cass Business School (£2,000), both declined

## Other Information

**Languages:** English, Hindi, Telugu, basic French

**Interests:** I'm deeply interested in computational statistics & machine learning. Astronomy; I have a year of experience with the Northumberland telescope and I've published in a supernova catalogue and the CU astrophotography magazine.