

# Aditya Ravuri

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🎂 26 Oct 1996

## Education

- Oct 2016 to Jul 2017 **MPhil in Management, Cambridge University** Cambridge, UK  
Commendation (70%) (top ~20%)  
➤ Audited philosophy of science, measure theory, advanced probability & physics lectures. Member of the astronomical society.  
➤ Received the top prize in a strategic valuation project involving portfolio selection & real options.
- Sep 2013 to Aug 2016 **BSc Hons in Actuarial Science, Heriot-Watt University** Edinburgh, UK & Boston, USA  
Distinction (83%) (top 3%), Bronze Volunteering Award, exempted from CT1-CT8  
➤ My focus was quantitative risk management. Modules included statistical modelling, financial economics & actuarial mathematics.  
➤ Harvard Summer School & HBX: CORE (summer '15, '16): Subjects included physics, economics & analytics (high honors).  
➤ I received the top prize in all research & statistical projects. These include "Stochastic Volatility in ESTX50" – which involved modelling risk levels using GARCH models, "A Financial Risk Case-Study of Amaranth Advisors" – mainly a liquidity risk analysis and "An Introduction to Economic Scenario Generators" – a survey paper. One of these was published in the university magazine.  
➤ I was also a Student Mentor, an Executive of the Student Union and the President of the HW Chess Society. This involved teaching statistics, acting as an information source, training school officers, holding feedback forums, developing union strategy, acquiring and managing society finances, drafting policy, teaching chess, organizing weekly sessions and freshers' events.
- Feb 2011 to Jun 2013 **IGCSE & GCE A-Levels, Cambridge** Ndola, Zambia  
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  
➤ During this time, I received a top student award, ranked 3<sup>rd</sup> in the UI6 Chess Nationals, qualified for a bronze DofE and won a regional prize for research on accessible clean fuels. My IGCSE was done in just 3 months due to extenuating circumstances.

## Work Experience

- Sep 2017 to present **Data Scientist & Statistician, Sciemus Ltd** London, UK  
➤ Involved with building and maintaining end-to-end tech-related solutions, particularly in the space, weather and power business areas. This usually involves data cleaning, analysis, modelling, documentation, deployment using web-apps and maintaining web servers, databases and other services. I've also made major contributions to an implementation of an Amazon AWS based parallelized back-end to accelerate model computations.  
➤ On the modelling side, I've worked with GLMs, Hidden Markov models, Gaussian Processes, bootstrapping in the context of time-series trend estimation, importance sampling and subset simulation on which I'm currently doing personal research. I also maintain a library for ggplot2-based statistical plotting and I've also written *complete* (internal) code for Gaussian Process estimation, basic prior elicitation & associated Jacobian adjustments for particular small-dataset problems.
- Jul 2017 to Aug 2017 **Data Science Intern, Coloplast Ltd** Peterborough, UK  
➤ Aided the development of a business time series forecasting model by contributing to model design, introducing a particular loss function to account for inaccuracies while working with splines and linear filters, linking various model components, doing analysis on seasonality and covariate forecasting and fitting ARMA models to the resultant stationary series using Excel & R.
- May 2017 to Jun 2017 **Management Consultant, Jaguar Land Rover Auto PLC** Cambridge, UK  
➤ Delivered & presented the paper below as part of a consulting project - 2<sup>nd</sup> in class. My presentation was highly commended.

## Papers (Non Peer-Reviewed)

**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.  
\* did original research on improving the accuracy of input-output multipliers by utilizing data that relates to the company's supply chain.

## Technical Skills

**OSs & Frameworks:** Linux, (Mac) OS X, Windows, Keras, Jupyter, AWS, Ms Office, Git  
**Languages:** R, Python w/ Numpy, Plotly Dash, Stan & JAGS (MCMC), Markdown & MathJax  
**Basic familiarity with:** C, SQL (postgres), MATLAB/Octave, Flask, PyMC3, @Risk, LaTeX, R Shiny, Pandas, tidyverse, old theme development apps, machine learning

## Other Information

**Languages:** English, Hindi, Telugu, basic French  
**Interests:** Astronomy; I have a year of basic experience using the Northumberland telescope and I've published in astrophotography magazines.