

Raphael Sonabend

Work Experience

Freelance Senior Data Science Consultant at MLAI Consulting **August 2013 – Present**

- I trade under the name MLAI Consulting to grow my client base for data-science projects. I consult on a wide range of projects within data science from designing and implementing custom data architecture to building bespoke machine learning models. I have experience in several industries, including financial and healthcare.
- Previous clients include: LEGO, ISEH and Nuffield Health.

Researcher/Visiting Researcher at The Alan Turing Institute **July 2017 – October 2019**

- As a Visiting Researcher I had the opportunity to be readily available for collaborations with the Turing and their clients. This included taking part in data study groups and volunteering on Turing projects including NHS Scotland's SPARRA.
- As a Researcher I was a data analyst on a collaboration with Roche, studying the use of machine learning on advanced non-small cell lung cancer data.

Data Scientist at Nuffield Health **June 2017 – September 2017**

- Working in collaboration with The Alan Turing Institute and UCL, I created machine learning models for the purpose of churn prediction and analysis.
- This project required Microsoft Azure for data-handling and pre-processing in SQL, as well as API building to ensure the marketing team could effectively use the model.

Systems Project Manager at Free2Learn & Display London **March 2016 – February 2017**

- My primary role was to design and implement financial systems to monitor, analyse and automate day-to-day processes. I also performed general accounting and administrative duties in QuickBooks Pro and Salesforce.

Recruitment Assistant at Telecom Plus PLC **April 2015 – June 2015**

- As well as performing recruitment duties, including selecting candidates from CVs and conducting telephone interviews, I also worked alongside the financial controller to build an Excel program, using VBA, that allowed comparison and analysis of several extensive non-compatible databases.

Currency Analyst at Caxton FX **September 2014 – March 2015**

- As well as providing reports and briefings for clients on currency movements I also automated a large number of processes, which allowed company live-updates for exotic currencies and real-time monitoring of client positions on forward contracts.

Education

University College London

Statistical Science MPhil/PhD
Fully funded by EPSRC.

2018 – Present

Statistics BSc – 1st Class Honours

2015 – 2018

Dissertation: *Methods and Architectures for Risk and Time-to-Event Modelling* (Supervisor: Franz Király)

University College School, Hampstead

2003 – 2014

A-levels, 2014

- Mathematics, Further mathematics – A*
- Physics, Philosophy – A

GCSEs, 2012

- Maths, Physics, Biology – A*
- English Literature, English Language, French, Chemistry, Latin – A
- History, Drama – B

Selected Publications and Pre-Prints

Mateen, B. and Sonabend, R. (2019), All I want for Christmas is...Rigorous validation of predictive models to prevent hasty generalisations. *Significance*, 16: 20-24.
doi:[10.1111/j.1740-9713.2019.01336.x](https://doi.org/10.1111/j.1740-9713.2019.01336.x)

Raphael Sonabend and Franz Kiraly (2019). *distr6: The Complete R6 Probability Distributions Interface*. <https://CRAN.R-project.org/package=distr6>

Király FJ, Mateen BA, Sonabend R. (2018). *NIPS - Not Even Wrong? A Systematic Review of Empirically Complete Demonstrations of Algorithmic Effectiveness in the Machine Learning and Artificial Intelligence Literature*. Preprint, arXiv 1812.07519.

Skills

Software:

- Tableau, Microsoft Azure, Microsoft Office, Salesforce, Zoho, QuickBooks Pro, Adobe Creative Cloud

Programming Languages:

- R, Python, VBA, SQL, HTML, CSS, SAS, Java

Statistical:

- Machine Learning, Data Science, Data Analytics, Visualisation, Big Data

Other:

- ACCA FA1 & MA1 exams, passed in October 2016.
- Alto and Soprano saxophone, Grade 8

References: Available upon request