

Caio D. Rear

PERSONAL DATA

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WORK EXPERIENCE

Current APRIL 2021	Data Scientist at CAPCO, London <i>Project II: Large UK Retail Bank</i> <ul style="list-style-type: none">- Responsible for the design of the analytics component of the straight-through processing of claims as part of a large-scale transformation project of their general insurance business.- Independently devised a reinforcement learning model for claim settlement optimisation, capable of dynamically adjusting settlement strategies to minimise full-time equivalent and indemnity costs. <i>Project I: Large UK Investment Bank</i> <ul style="list-style-type: none">- Built, with PySpark, a data asset for 'green' products as part of a reporting project, for a large UK bank, tasked with tracking progress towards a high profile sustainability commitment.- Independently increased the availability, from 60% to over 95%, of data from a key database feeding the asset via fuzzy string matching between systems and a gradient boosting regression model. <i>Data Practice</i> <ul style="list-style-type: none">- Part of a small team that created a prototype model for health insurance claims. Developed a classification model for claim likelihood with an accuracy of 90% on 50/50 datasets.
2019-21	Actuarial Analyst at AON, Epsom <i>Retirement & Investment</i> <ul style="list-style-type: none">- Managed the member transfer value request process a number of clients, including delegating, triaging and delivering complex calculations regarding the pension's cash equivalent values.- Undertook actuarial modelling for various scheme valuations including monitoring of funding levels and bespoke analysis of special purpose vehicles.
JULY-AUG 2019	Data Analyst at M&G, London <i>Finance Product Support</i> <ul style="list-style-type: none">- Was part of a team of three tasked with building a preliminary tactical model providing the backbone for the launch of smoothed fund products into mainland Europe.- Developed the prototype system for the storage and analysis of trade data, integrating a variety of tools such as VBA, SQL and Power BI.

EDUCATION

2015-19	Master of MATHEMATICS, University of Warwick, Coventry Diss.: 'Bayesian Inference of Chromosome Dynamics via MCMC' Grade: 2:1	Supervisor: Prof. Nigel J. BURROUGHS
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TECHNOLOGIES

Python | Git | HTML | JavaScript | Azure | PySpark | SQL | MATLAB | R | VBA

OTHER PROJECTS

2021-22	Cricket Betting Platform <ul style="list-style-type: none">- Cricket Augur is a Flask application platform integrating a the Betfair API and a match prediction model to calculate real-time value bets. It also uses Meta's messenger API to provide notifications to the user at pre-defined value thresholds and is deployed using the Azure app service.
2021	T20 Cricket Prediction Model <ul style="list-style-type: none">- Developed a gradient-boosted trees classification model developed on open source ball-by-ball data using pandas, scikit-learn and XGBoost.
2019-21	Poisson Shock Model for Football Scorelines <ul style="list-style-type: none">- Built a bivariate Poisson shock model, for both positive and negative covariances, that infers its parameters from highly liquid markets in order to make predictions in less liquid ones.