Rolf Britten
Curriculum Vitae

Qualified Actuary with a proven record of delivering of high-quality projects, models and analyses.
Experienced in Personal Lines pricing with a particular interest in nascent pricing technologies and techniques.

Education

2016 – 2019	**Institute and Faculty of Actuaries** FIA
2010 – 2013	**University of Exeter** BSc [Hons] Mathematics - 2:1
	Advanced Statistical Modelling, Stochastic Processes, Numerics and Optimisation
2008 – 2010	**Aylesbury Grammar School** A Level - AAB

Professional Experience

AXA Insurance — Personal Lines:

Data Science Manager *March 2020 – Present*
- Pricing's in-house Data Science team, responsible for driving technological excellence, R&D and development of tools and techniques. Team also sources and maintains internal and external datasets.
- Provided automations for compliance review of ML Interpretability packs for model refreshes (1000s of plots). Implemented algorithms from literature review and created novel processes based on stakeholder requirements.
- Evaluating geographic smoothing in non-linear model pipelines. Recommendations implemented as next motor risk model refresh with predictive improvement equivalent to a full refresh.
- Maintained AXA Pricing's common code base and quality control through implementation of R and Python distributable packages.
- Exploration, load testing and benchmarking of cloud-based scoring pipeline optimisations. This ensured Pricing model APIs can meet SLAs at volumes of up to 500 requests per second. Proof of Concept in advance of IT project for industrialised solution for ML Deployment.

Technical Pricing Manager *March 2019 – Feb 2020*
- Responsible for maintenance and improvement of AXA Direct Motor's risk pricing layer.
- Leading projects, analysis and providing line management responsibilties across a team of 4 analysts.
- Delivered first incremental refresh of machine learning (ML) risk models. Delivered an anticipated strong LR benefit using innovative new features, collaborating with Data Science.
- Peril Allocation research project found more predictive splits for Injury claims.
- Complete re-build of AvsE interactive reporting. Automatically flag and rank problematic n-way segments. Accompanying plots provide approximations demonstrating whether statistical significance is likely.

Senior Technical Pricing Analyst *January 2018 – February 2019*
- Involved throughout the delivery of new ML model suite. Main overseer of data wrangling, rating system deployment, Impact Analysis and project retrospective.
- Supported members of the team with technical problems and shared areas of knowledge I have gained from a large spectrum of pricing work.
- Feature engineering from test-level MOT data, followed by analysis and presentation of statistically significant pricing deficiencies.
- Developed a number of bespoke functions for in-house R package. Included ML Interpretability plots and dynamic html MI packs. These were instrumental in assuring stakeholders of the performance and validity of the new ML models.

- Chairing regular meeting for cross-team analysts to present work and share knowledge.
- End of year review rating of 'Excellent'.

Technical Pricing Analyst *June 2015 – December 2017*
- Refresh of Motor Insurance EMBlem Risk Pricing models suite from SAS Data Prep to post-deploy analysis and monitoring.
- Developed in-house alternative to market-leading geographic analysis tool in R. Incorporated several bespoke algorithms to compete/ensemble. Tool has been shared across business units, including overseas, with consistent improvement in performance on unseen data.
- Examined claims development across rating factors and created bootstrap solution to assess significance of observed differences.
- Re-wrote Motor Expected Loss Ratio (ELR) process. Integrated stochastic elements to produce confidence intervals on reported ELR to demonstrate to stakeholders variance of loss ratio predictions.
- End of year review ratings of 'Excellent' and 'Outstanding'.

eRate (Rating Engine) **Analyst** *April 2014 – June 2015*
- Received award from MD for delivering Group Internal Audit action to design and implement automated solution for testing of aggregator value mappings against a tight deadline.
- Devised several highly effective changes to weekly rating deploy processes - including digestible log of production rating models for stakeholders and Weekly Deploy Stand Up.
- Proactively working with several areas of the business (such as pricing, commercial and IT teams) in order to deliver accurate and timely pricing changes, small change, defect fixes and projects.
- End of year review rating of 'Excellent'.

Skills

Leadership and Communication I enjoy working closely with others and **mentoring** junior colleagues. Helping them to understand complex issues and deliver quality work can be immensely rewarding.

I have often received strong feedback on my **presentation and communication** skills. I am comfortable adapting my content and style as appropriate; to update stakeholders, secure buy in for projects, or to elicit discussion and generate ideas. I enjoyed the experience of running my own regular meeting for analysts, curating the agenda and modifying the format to give the most value to my colleagues.

My early career at AXA put me at the heart of many IT projects, introducing me to the benefits of **Agile project methodologies**. I adopt many of these into my own management style - both in the projects I lead and the work stacks of my direct reports.

Technical Knowledge I am motivated by the challenge of designing elegant solutions to business problems.

I have a high level of proficiency in **R**, **Python**, **SAS**, experienced in **SQL** and **VBA** among others.

I have always looked to add to my technical skill set; whether that be Actuarial Exams, research projects or online courses. e.g. Java through Coursera, various through DataCamp and LinkedIn Learning.

Innovation Driving improvements to processes and models using novel ideas and methods, in order to deliver a competitive edge to the business is something I truly enjoy. I try to work in a way which **challenges and improves processes**, but without sacrifices to objective outcomes.

Throughout my career at AXA I have made improvements to many processes across the eRate and Pricing team. I encourage my team to develop and share tools and processes that improve our ways of working and the communication of results to stakeholders.

Interests

Keen long-distance road cyclist. Role as lead cyclist in charity cycle rides - responsible for the safety, coherence and morale of groups on the road.

Charity volunteer. Assisting in the running of STAR's (Student Action for Refugees) annual conferences and training events. I also provide technical consultancy and have produced promotional videos.