# Rolf Britten
## Curriculum Vitae

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

## Education

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| 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

**Direct Line Group:**

**Lead Data Scientist - Pricing & Underwriting** *June 2021 – Present*
- Technical Lead on DLG's Pricing Transformation for motor risk models
- Brought experience and innovation to drive forward closing stages of incumbent modelling pipeline project; Improved Squad's ways of working in their use of tools, both current and new
- Built R package to interface with Emblem models to gather quicker and deeper insight

**AXA Insurance:**

**Data Science Manager** *March 2020 – May 2021*
- Driving technical excellence, business-focused R&D and adoption of improved tools/techniques across AXA Personal Lines pricing
- Provided automations for compliance and QA review of ML explainability packs for model refreshes; implemented algorithms from literature review and created novel processes based on stakeholder requirements
- Designed process for geographic smoothing in non-linear model pipelines; recommendations implemented as next motor risk model refresh with predictive improvement equivalent to previous full refreshes
- Owner of common code shared through R and Python packages
- Explored, load tested and benchmarked cloud-based scoring pipeline optimisations: This ensured Pricing APIs would meet SLAs at volumes of up to 500 requests per second
- End of year review rating of 'Excellent'

**Technical Pricing Manager** *March 2019 – Feb 2020*
- Responsible for maintenance and improvement of motor risk pricing for AXA's direct brands
- Led analysis, modelling, reporting and ad hoc investigations whilst providing line management responsibilties across a team of 4 analysts
- Delivered first incremental refresh of machine learning risk models; value generated through innovative new features, collaborating with Data Science
- Peril Allocation research project discovered improved split for injury claims model
- Complete re-build of AvsE interactive reporting: Included tools to automatically flag and rank problematic n-way segments and dynamic plots with approximations for statistical significance

**Senior Technical Pricing Analyst** *January 2018 – February 2019*
- Key member of team which delivered new ML model suite. Main overseer of data wrangling, rating system deployment, impact analysis and project retrospective
- Feature engineering from test-level MOT data, followed by analysis and presentation of statistically significant pricing deficiencies
- Developed bespoke functions for in-house R packages; included ML explainability plots in interactive html

to achieve buy-in of new ML models through assuring stakeholders
- Chaired 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*
- Refreshed Motor Risk Pricing models in Emblem and wrote the code for SAS Data Prep, post-deploy analysis and monitoring
- Developed in-house alternative to market-leading geographic analysis tool in R which was shared across AXA globally: Incorporated several bespoke algorithms to compete/ensemble. Tool gives consistent improvement in performance on unseen data on problems across AXA Group
- Examined claims development across rating factors and created bootstrap solution to assess significance of observed differences
- Re-wrote Motor ELR process: Integrated stochastic elements to demonstrate to stakeholders the variance of loss ratio predictions
- End of year review ratings of 'Excellent' and 'Outstanding'

**Rating Engine Analyst** *April 2014 – June 2015*
- 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
- 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 team's processes - including digestible log of production rating models for stakeholders and weekly prioritisation meeting
- End of year review rating of 'Excellent'

# Skills

**Leadership and Communication** I try to embed the best elements of **Agile** operating models in the way I work and manage the work around me. Focusing on the customer, constant communication and Test & Learn are a few of the principles that I find most beneficial in getting the most value from an analytical function.
I enjoy **coaching** colleagues and I manage my relationships with emphasis on engagement and empowerment. I am comfortable adapting the style and content of my **presentation and communication** as appropriate; to update stakeholders, secure buy-in and engagement, or to generate discussion and ideas.

**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** while maintaining focus on objective outcomes.
Throughout my career I have made improvements to many processes across multiple domains. I encourage my colleagues to develop and share knowledge and ideas to improve ways of working and the communication of results to stakeholders.

**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** and **SQL** and I am experienced in **SAS** and **VBA** among others.
I always look to add to my technical skill set; whether that be learning from those around me, Actuarial Exams or continuous online learning

# Interests

**Endurance Cyclist**. Led charity cycle rides - responsible for the safety, morale and team work of colleagues on challenging rides.
**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.