Priya Chowdhury

Junior Actuary / Data Analyst

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Mathematics graduate from the University of Warwick with internship experience in general insurance pricing at Aviva. Passed IFoA exams CM1 and CS1, currently preparing for CB1. Built GLM pricing models in R that reduced quote to bind leakage by 3.2% across a motor insurance book of 180,000 policyholders. Strong in R, Python, SQL, and Excel VBA.

EXPERIENCE

Actuarial Pricing Intern, Aviva, London — *Jun 2024 – Sep 2024*

Joined the Motor Pricing team for a 16 week summer internship, working directly with qualified actuaries on the personal lines motor book.

- Cleaned and validated **180,000 policyholder records** in R, identifying and correcting 2,400 data quality issues
- Built a GLM pricing model that reduced quote to bind leakage by **3.2%** across the motor book
- Created 14 data visualisations in ggplot2 for the quarterly reserving report, reviewed by the Chief Actuary
- Automated a manual Excel reconciliation process in Python, saving the team **6 hours per month**

Mathematics Tutor, University of Warwick, Student Support Services, Coventry — *Oct 2023 – Jun 2025*

Peer tutor for first and second year mathematics students, covering probability, statistics, and linear algebra.

- Tutored **35 students** across 2 academic years with a 94% satisfaction rating
- Created 8 revision worksheets for the Statistics 1 module, adopted by 3 other tutors

EDUCATION

BSc (Hons) in Mathematics, University of Warwick, Coventry — *Sep 2022 – Jun 2025*

First Class Honours. Modules include probability theory, statistical methods, financial mathematics, and stochastic processes. Dissertation on Bayesian network models for credit risk assessment.

SKILLS

R (tidyverse, glmnet, ggplot2) • Python (pandas, scikit-learn, NumPy) • SQL (PostgreSQL, MS SQL Server) • Excel & VBA • GLM Pricing Models • Reserving & Loss Triangles • Bayesian Statistics • Data Cleaning & Validation • LaTeX & Markdown Reporting • SPSS

CERTIFICATIONS

IFoA CM1 (Actuarial Mathematics) – Passed, Institute and Faculty of Actuaries — *Apr 2024*

IFoA CS1 (Actuarial Statistics) – Passed, Institute and Faculty of Actuaries — *Sep 2024*

LANGUAGES

English (native) • Bengali (conversational)

PROJECTS

Dissertation: Bayesian Network Models for Credit Risk Assessment — *Oct 2024 – Apr 2025*

Built and evaluated Bayesian network models for predicting loan default using 5 years of Lending Club data.

- Processed **2.3 million loan records** and engineered 18 features for model training
- Achieved a **12% improvement** in default prediction accuracy over logistic regression baseline (AUC 0.84 vs 0.75)
- Awarded a mark of 78% and selected for presentation at the Warwick Undergraduate Research Conference

REFERENCES

Sarah Whitfield, Senior Pricing Actuary, Aviva, sarah.whitfield@aviva.co.uk, +44 7700 900 214

Dr. Michael Sherbourne, Associate Professor of Statistics, University of Warwick, m.sherbourne@warwick.ac.uk, +44 7700 900 392

EXTRA CURRICULAR ACTIVITY

Treasurer, Warwick Actuarial Society — *Sep 2023 – Jun 2024*

Managed a £4,200 annual budget. Organised 6 employer networking events with firms including Zurich, WTW, and Barnett Waddingham, attended by 180+ students.