PRAMO SAMARASINGHE

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EDUCATION

Bachelor of Computing Honours, Australian National University, 2025

Research: *Rethinking Mortality Using a State-Based Dynamic Probabilistic Model Leveraging National-Scale Health Data*
This research aims to improve upon traditional mortality predictions to further improve lifestyle of retirees in Australia by ensuring better planning horizons. The prosed model considers health-based impacts on mortality and incorporates the dynamic nature of individual health status. It leverages the personal-Level Integrated Data Asset (PLIDA) dataset to improve actuarial forecasting for annuity payments.
Course Work: Statistical Machine Learning, Research methods, Document analysis, Computer vision
Presentations & Talks: Actuarial school ANU, AI, ML and Friends Seminar, UNSW Australasia Actuarial Summit

Actuarial Institute Exemptions, Actuarial Institute Australia, 2019 – present

- **Foundations program (6/6):** Actuarial Statistics**,** Risk Modelling and Survival Analysis, Actuarial Mathematics for modelling, Economic Modelling**,** Business Finance**,** Business Economics.
- **Actuary Program (4/4):** Communication modelling & Professionalism, Control Cycle, Data science principles, Asset Liability Matching
- **Fellowship Program (2/3):** Life Insurance & Retirement product development, Life Insurance & Retirement Valuation

Bachelor of Science, Australian National University, 2019 – 2024
Major: **Computer Science** Minor: **Mathematics** GPA: **6.63** /7.0
Course Work: Algorithms, Number Theory & Cryptography, Structured Programming, Discrete Mathematics

Bachelor of Actuarial Studies, Australian National University, 2019 - 2024
GPA: **6.06**/7.0
Course Work: Actuarial Data Analytics, Actuarial Control cycle, Life contingencies, Survival modelling, Derivatives

EXPERIENCE

Actuarial Intern, Australian Government Actuary, Treasury, Sep 2022 – Dec 2025
I have worked on numerous projects which include helping debug existing actuarial models and helping develop new ones. I have developed numerous skills over the years, which include documentation, effective communication, time management and data analysis skills. I have worked both in groups and individually. I have used excel, R, and SAS for data analysis and modelling.

Research Assistant, Australian National University, Feb 2020 – Semester 1 2024
Research internship, Australian National University, Dec 2020 – Feb 2020
Research topic: Translating the timing aspects of process algebra to mCRL2.
Learnt concepts of times process algebra and developed an algorithm for the translation of timed aspects in process algebra. Currently testing and proving the algorithm and its accuracy. Continued as a research course.

Tutor, Australian National University, Semester 2 2020 – Semester 1 2024
Throughout my experience as a tutor, I developed leadership and communication skills. I have contributed by making numerous assignments, exams, and content. I have been proactive and helped with numerous backend tasks such as exam invigilation, oral exams, marking. **Courses taught**; COMP1100, COMP1110, COMP1600.

Organizer, Logic Summer School, Australian National University, (Jun-Dec 2021, Jun-Dec 2023, Jun-Dec 2024)
As one of the three organizers of the Logic Summer School (LSS) I helped run social events, plan lecture schedules, communicate with lecturers, reach out to students, help give out scholarships, organize tea breaks. Throughout which I developed organizational skills, leadership and time management skills.

Research support officer, Ormia Research**,** Feb 2021 – Dec 2021
Data analytics with the use of Excel. Assist research consultants with tasks such as coding of open-ended comments, proof-reading text, checking numbers in reports against their source, clerical support.

P.A.L mentor, Australian National University, Semester 1 2020
Taught the fundamental programming language "Haskell" and built worksheets regarding the content of the course. Developed knowledge on teaching and delivering of content online with COVID-19.

Actuarial Internship, Softlogic Life, Dec 2019 – Jan 2020
Identified periodic trends in the nature of the claims through a heath claim analysis and identified anomalies and outliers in the claims data.

SKILLS SUMMARY

Technical Skills:

- **Actuarial Modelling & Analytics:** Experienced in actuarial modelling techniques including GLMs, survival models, risk modelling, and microsimulation. Applied these in actuarial coursework and professional projects at the Australian Government Actuary (AGA) and during internships.
- **Machine Learning Applications:** Developed a machine learning-based mortality prediction model as part of my Honours thesis, leveraging the PLIDA dataset to enhance forecasting for retirees.
- **Applied Actuarial Practice:** Delivered actuarial insights through health claims analysis at Softlogic Life, identifying anomalies and trends to support data-driven decision making.
- **Data Analysis & Statistical Software:** Proficient in Microsoft Excel (including VBA automation) applied at AGA and Softlogic Life; experienced in SPSS for data analysis during my research role at Orima.
- **Financial Software:** Skilled in Xero for financial reporting and budgeting as Director of Finance at UN Youth, ACT.
- **Typesetting:** Proficient in LaTeX and Markdown, used for technical report writing during research internships and academic assignments.
- **Code Quality & Documentation:** Built strong coding and documentation skills through my computer science degree, focusing on writing clean, maintainable, and efficient code.

Programming Languages:

Proficient in **R** (applied extensively in actuarial work at AGA and academic assignments), **Java** (achieved High Distinction and tutored the Java course at ANU), **Python** (utilized for modelling in Honours research), **Haskell** (earned High Distinction, tutored the course, developed assignments, and proficient in monads), **C++** (applied in algorithms coursework, enhancing efficiency in coding), **SPSS** (primary tool used at Orima for data analysis), **SQL** (applied in COMP2420 assignments), and **SAS** (used for actuarial modelling at AGA). Experienced in **Excel Macros (VBA)** for automating repetitive tasks and improving workflow efficiency.

Communication Skills:

- **Languages:** Fluent in both English and Sinhala.
- **Report Writing:** Authored technical reports during ANU research internships and while working at AGA.
- **Presentation and Facilitation:** Delivered a winning presentation at GovHack 2023 on Victorian recycling trends. Guest speaker at ASOC's actuarial panels and high school outreach sessions. Additionally, successfully completed communication modelling and professionalism with the actuarial institute.
- **Mentorship & Leadership**: Course representative for multiple computer science and actuarial courses. Mentored students through ANU PAL and Set4ANU programs.

Research and Analytical Skills:

- **Statistical Analysis:** Built statistical analysis expertise through CS1 and other actuarial coursework.
- **Critical Thinking:** Strengthened critical thinking skills in teaching and facilitation roles.
- **Actuarial Analysis:** Gained analytical and report writing skills during actuarial internships.
- **Data Analytics:** Conducted data analytics projects and data validation tasks as a research assistant at Orima.

VOLUNTEER EXPERIENCE

- **Panelist**, First Year Panel at ASOC's "Understanding Exemptions" event, ANU, March 2024
- **Guest speaker**, Actuarial information session for high school students, ANU, Sem 2 2023
- **First aid officer**, CSIT, ANU, 02/2022-08/2023
- **Director of finance**, United Nations Youth ACT, Dec 2020 – present
  Developing budgets for the division, overseeing the budgets for events, obtaining sponsorship for the division, maintaining the bank accounts for the division, and developing audited financial reports for the division.
- **Set4ANU mentor**, Semester 2 2020, Semester 1 2021
- **ANU+,** Jan 2020 – Dec 2022: Completed ANU+ (over 100 hours of volunteer work)
- **Facilitator**, United Nations Youth, Sept 2020 – Dec 2024
- **Retail Worker**, Vinnies, Dec 2020 – Aug 2021
- **Substitute Teacher**, Musaeus College, Sri Lanka, Sept 2018 – Nov 2018
  Assigned two advanced level classes of around 30 students each to teach combined mathematics and chemistry. Also taught in lower nursery classes as an assistant teacher during this period.

Referees: Available upon request.