# Samuel Webb

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# **EDUCATION**

#### University of Edinburgh, MMath Mathematics

Sep 2020 - Jun 2025

Dissertation: Load Balancing in Cloud Networks (Current). Undergraduate project: Theorem Proving in Lean (Grade 84%). Areas of interst: Formal Verification, Stochastic Processes, Dynamic Programming, Measure Theory, Proof, and Machine Learning.

#### Alleyn's School, London

Sep 2013 - Jun 2020

- A Levels: **A\***, **A**, **B** in Mathematics, Physics, Further Mathematics.
- GCSEs: 5x 9, 4x 7, 2x A including Mathematics, Additional Mathematics FSMQ, English Language.

## WORK EXPERIENCE

Actuarial Insurance Consulting Intern, Lane Clark & Peacock LLP, London, Received graduate offer

Jul 2024 - Aug 2024

- Researched applications of machine learning to dependency modelling in general insurance markets. Presented findings to the team.
- Developed R scripts to automate report generation. Significantly reduced time required to produce reports and added value through client customisation. Developed tools with documentation to automate data cleaning, analysis, plotting, and report generation.
- Assisted in building and testing capital models (Remetrica). Lloyds syndicate primary/secondary model validation (Excel and R).

#### Maths Society Treasurer - Previously Events Coordinator, University of Edinburgh

May 2023 - Present

Developed maths society website using HTML, CSS, and Go templating. Created custom scripts to automate event creation and management. Created documentation for future committee members. Increased society sponsorship by £1,000 through targeted outreach. Managed a budget of £12,000 to organise the Maths Society Ball, for 150+ people, as part of a small team.

## QuantSIG & EUTIC Quant Team, University of Edinburgh

May 2023 - Present

- Developed a stock prediction tool, leveraging scikit-learn and machine learning methodologies implimented in **Python**.

## COVID-19 Volunteer, Vaccination Centre, London

Apr 2021 - Sep 2021

Checked in 60+ patients hourly, monitored for any adverse reactions and ensured patients' safety.

#### Arup Group Limited, London

Aug 2018

Shadowed engineers, and observed applied maths required for electrical, mechanical and civil engineering. Gained an understanding
of task decomposition and attention to detail in engineering.

## Canopius Lloyds of London, London

Jun 2018

Shadowed actuarial, risk pricing, and catastrophe modelling teams as well as underwriters and a broker. Gained insight into the
process of computer-assisted calculation in catastrophe modelling.

# **EMPLOYMENT**

# Bartender & Waiter, Off to Work, London, Edinburgh

Jun 2023 - Present

- Worked in a variety of venues, including The Science Museum, Guards Polo Club, the Oval Cricket Ground, and private venues, with dynamic teams of 3-40 people. Serving up to 800+ people per event.
- Required to be adaptable, and to quickly learn new skills and procedures often in an unfamiliar environment.

## ID Compliance Auditor, Serve Legal, London, Edinburgh

Mar 2021 - Apr 2023

- Keep up to date with the current guidelines on correct age verification and allergen procedures.
- On a part time basis visit **10+ sites per day**, and accurately record details for reports.

# Bartender, Waiter, & Cook, Good Neighbour, London, The Vurger Co, London

Mar 2018 - Sep 2021

Worked as a team of 3 to serve 80+ customers daily, simultaneously welcoming and seating customers, taking orders, preparing and serving food and making drinks.

## COVID-19 Testing registrar / Results recorder, University of Edinburgh

Dec 2020 - Jan 2021

- Registered 50+ people per hour, directed them through COVID-19 testing and registration process.
- Tested **25+ people per hour** and recorded results.

# SKILLS AND INTERESTS

**Lean** (Theorem proving) **Python** (Used numpy, matplotlib, scipy, pandas, scikit-learn, tensorflow, socket, and ryu for; machine learning, numerical calculus and linear algebra, regression modelling, image processing, UDP client-server and software-defined networking) **R** (Principal component analysis, statistical hypothesis tests, regression, analysis of variance, likelihood estimates) **LaTEX** (This CV, Beamer presentations, posters, and standard documents) **Docker** (Home Server) **Linux** (Home Server and MathSoc website)

**STEM Ambassador** (Working with schools to promote STEM subjects) **Cycling** (Fundraised for Oddballs Foundation rode Manchester to Edinburgh) **Netball** (MathSoc Intermural Team Captain) **Handmade bicycle and Motorcycle rebuild** (Designed with CAD. Rebuilding classic motorcycle including engine rebuild) **Pool and snooker** (Pool clubs and pool society) **Poker** (UoE Poker Society)