Amelia Edmondson-Stait

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Post-doctoral researcher transitioning into software development and testing. Building an R Shiny app during my PhD sparked my interest in software development. I deepened this interest in a software development bootcamp. Excited to bring my problem-solving, collaboration and technical skills to a software career.

Education

CodeSpace Software Development Bootcamp | Edinburgh College

Feb - Apr 2025

- Built a full-stack eCommerce website with PHP, SQL, JavaScript, HTML, CSS with Cypress e2e testing.
- Proactively added password hashing and test user management features.
- Initiated task management on Jira and organised team meetings for a group presentation project.

PhD, Translational Neuroscience | University of Edinburgh 2019 - 2024

- Quickly learnt new technologies to develop neuroimaging processing pipelines during a fast-paced project.
- Took opportunities to learn new programming skills, eg. SQL and R Shiny app development.
- Set up and lead a coding club for our department, fostering collaboration and skill-sharing.

First Class Honours, BSc Neuroscience (with Placement Year) | Cardiff University 2012 - 2016

A-levels: Biology (A*), Chemistry (A*), Maths (B), Art (A*) | The Cheltenham Ladies' College 2005-2012

Experience

Post-doctoral Researcher | University of Edinburgh

July 2024 - Present

- Created genetic analysis scripts for depression research whilst learning a new language (nextflow).
- Work collaboratively on GitHub with another colleague, using pull requests to review each other's code.
- Developing an R package for colleagues to create supplementary tables to reduce time-consuming tasks.
- Continue to lead coding club and host code review clinics in my department.

App developer (R Shiny) | University of Edinburgh

Feb - Sep 2023

- Developed an application to facilitate statistical modelling for users without specialist backgrounds.
- Led task and project management with Kanban board in a 3-person team.
- **Exceeded client expectations** by delivering a prototype beyond minimum requirements, resulting in additional funding for me to develop the app further during a 6-month secondment to my PhD.
- Documented bugs and user-feedback clearly and concisely with sufficient detail with GitHub issues.

Research Assistant | University of Cambridge

2016 - 2019

- Reconstructed neurons in a scanned fruit fly brain to create a map of connections; analysed the data in R.
- Large collaboration with HHMI (USA) and University of Oxford, resulted in authorship of a publication.
- Trained six new colleagues in the use of the neuron reconstruction software.

Projects

- Spotify Streaming History Dashboard (Python Dash).
- E-Commerce Website (PHP, SQL, JavaScript, end-to-end testing (Cypress), Apache, XAMMP).
- JavaScript Calculator (automated testing with GitHub actions and Cypress).
- Raspberry Pi & Python Bus Tracker displays next local bus time to LCD screen.
- Web-scraping car sales site (Python, Beautiful Soup, data-visualisation).

Presentations & Public Outreach

- Co-created and presented webinar on git and GitHub for The Data Lab Scotland Community (Apr 2025).
- **Delivered "Code Review in Academia" workshop** to University-wide audience (March 2025) and invited to deliver it again to a new student group (May 2025).
- Delivered two workshops to showcase R Shiny app (TIDAL), received positive feedback from users (2023).
- Created a digital story to communicate my PhD research to the public (2020).
- Helped run stalls engaging public in research at science festivals (Edinburgh, 2019 & Cambridge, 2017).

Awards

- Secured external funding to deliver three workshops on code review (Improving Research Community Builder Award; Oct 2024).
- Co-investigator for Wellcome Trust Mental Health Data Prize (R Shiny application; 2023)
- Finalist for the University of Edinburgh's Good Research Practice Awards for coding club (Nov 2022).
- Wellcome Trust Translational Neuroscience PhD Stipend (2019-2024)