RosiaEvans

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Website and Work
https://rosia.me
https://repos.rosia.me

Tools
- 6 years experience Python, C/C++ and C#
- Azure DevOps, GitLab, Docker
- Alpine, Debian, Gentoo Linux

Profile

A graduate student with 4 years of industry experience as a Software Engineer In Test and as a Full Stack Python Developer. I have an ingrained curiosity around computers and their inner workings, spending my spare time experimenting with Linux or BSD and learning lesser-known programming languages such as Hare and Uxntal (a stack based assembly-like language). In work I display a deep joy in designing and working with well-built systems; In my previous role I pushed for heavy refactors of legacy code to enable deeper Unit Testing and in one case found a solution that decreased a page's load time by a factor of 12. My work often makes heavy use of Unit Testing and principles around Clean Code; I find the challenges of designing modular, efficient and future proof systems excite me massively.

I am eager, positive and intuitively people oriented, able to work across multi-disciplinary teams, listen/learn and communicate complex concepts in a simple and efficient manner.

Experience

2024-2025 **Software Engineer - Industry Year** Melbourn, Cambridgeshire
Dogtooth Technologies - Agricultural Robotics
Building software and validating hardware. Detailed achievements:
- Main developer responsible for refactoring and maintaining the company's main data dashboard. Hosted in AWS with frontend and backend written in Python, connecting to a PostgreSQL database, all running in docker containers.
- Built, documented and maintained a number of hardware testing and validation tools used across the company.
- Maintained and pushed for new documentation where it did not exist. Pushed for restructuring of legacy code to enable Unit Testing.
- Worked across a number of multi-disciplinary teams; among manufacturing, software and R&D groups.
- Debugged hardware, working across the entire tech stack of complex robotic systems, using a lab book to log and evidence decisions.

2021-2024 **Software Developer In Test** Skipton, Yorkshire
Skipton Building Society
Writing UI tests in C#, running manual tests, researching new testing tools. Detailed achievements:
- Pushed for the automation of testing processes, evaluating different options and presenting them to higher up's in the society.
- Ran a "coding-club" upskilling colleagues in programming and automated testing. Teaching C# to people with no prior experience.
- Wrote and executed standardised, structured and repeatable tests (manual and automated) following a number of different testing protocols over 3 years.
- Worked across a wide number of Agile teams, often within multiple at the same time, balancing workloads and meeting weekly deadlines.
- Changes implemented were sufficiently highly regarded that I continued to work for Skipton at University.

Education

2022–2026 **First With Honours B.Sc.** in Computer Science Aberystwyth University
Including:
- Including firsts in "C and C++", "Object Oriented Programming", "Algorithms And Data Structures" and "Modelling Persistant Data"
- High 2:1's in "Advanced Algorithms", "Computer Vision", "Artificial Intelligence" and "Software Engineering"

2014-2021 **3 A-Levels** A–A–B Ilkley Grammar School And Sixth Form
Including A in Computer Science and an A grade EPQ in VR Design

Skills

- **Deeply Ingrained Problem Solving and Debugging Skills**
  - Over 6 years of programming experience, debugging intricate and complex problems in low-level C/C++ code.
  - Previous work with debugging robotic systems, finding the cause of faults across the entire tech stack through logical step-by-step processes.
  - Hobbyist experience in electronic repair.
- **Communication and Teamwork Across Disciplines**
  - Previously written tools for external departments, discussing complex processes and requirements in-depth with colleagues of different expertises.
  - Previous experience planning and designing complex system architectures in teams.
  - Regular participant in game-jams, hackathons and the UKIEPC competitive programming competition, discussing, designing and implementing programs in teams under strict time limits.
- **Planning and Organisation**
  - Strong skills around meeting deadlines, using kanban to track work and manage time efficiently and using a lab book to log evidence based decisions during debugging and design.
  - Previous experience organising within bodies such as the BCS, running events with up to 50 attendees and planning trips of 30 people to other countries.
- **Adaptability**
  - Able to hit the ground running, asking questions, shadowing colleagues, learning quickly.
  - Able to work under pressure in new contexts, collecting information, itemizing and logically planning out a process.

Extra-curricular

- **President of Aberystwyth Computing Society** – Revived the society as its president before bringing on other committee members and flattening its hierarchy. I personally ran educational sessions for new members and organised regular talks alongside sorting our yearly trip to the European developer conference FOSDEM.
- **Standing committee member of BCS Mid-Wales Branch** (British Computing Society) – Helping run events of up to 50 people and organising AGMs.
- **Creating programs and hardware** – Examples can be found on my website and include:
  - Self-driving sailboats
  - A small wooden laptop with an E-ink display
  - Repair and maintenance of an retro digital camera and an old laptop which is now used as a server with stripped down kernel and hardware for power efficiency
- **Volunteer member of the Cambridge Makespace** from 2024-2025 – Running their monthly socials, inducting new members, planning their annual parties. Intending to re-join as I move back to Cambridge.

Interests

- Self-hosting Linux servers, using Alpine/Debian Linux, Docker and Systemd/Open-RC, writing my own web-services in C++ and Python.
- Experimenting with nicher operating systems including Plan9, BSD flavours and Gentoo Linux.
- Creating electronics and writing programs, including:
  - Reverse engineering, repairing and modifying old electronics such as laptops and cameras.
  - Writing programs, making games in Python/Python-based-languages in game-jams, creating tools for my servers.
  - Learning new languages, currently Rust, Hare and Uxntal (an emulated, stack-based assembly language).
- Writing pages for my personal website including blog posts, overviews of hobbyist work, informal documentation for niche libraries and cooking recipes.
- Clothing repair and modification.
- Cooking meals for friends, Drawing, Reading Non-Fiction.

References

Available upon request.