

Gemma Tipper

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Experience

MetalBear - Junior Software Engineer

May 2024–Present | Remote, UK

- Working on both **open-source** and closed-source software in **Rust**, Typescript, and other languages implementing both large and small scale features, including those requested by customers such as support for streamed HTTP requests and responses in client apps.
- Creating **transparent contributions** to the core code to benefit the community of developers that use mirrord in their development workflow, and engaging in constructive discussion about **design decisions** for new features and translating behaviour desired by developers into low-level software.

Citrix Systems - Software Engineering Intern

Jul. 2021–Jun. 2022 | Remote, UK

- Worked in the DevOps Core Tools team, improving **developer experience** across core systems including Jira, Kubernetes, MS Azure and Artifactory.
- Developed the **cloud migration strategy** for on-premise Kubernetes to MS Azure over a full PI cycle as part of the Scaled Agile Framework (SAFe) for all engineering teams, working alone with minimal guidance.
- Authored several **automated solutions** for the Core Tools team in **Python** and **Bash**, including data logging for Kubernetes with Grafana visualisation, with attention to the details of the team's complex technology stack.

Education

University of Bath - BSc in Computer Science

Sept. 2019–Jul. 2023 | Bath, UK

- Degree classification: **First Class with honours**
- Subjects covered include advanced algorithms and complexity, functional programming and parallel programming.
- Dissertation topic: **Implementation and extension of the Functional Machine Calculus to support concurrency**
- Dissertation included designing and writing an **interpreter** in Rust to demonstrate the extension to concurrency

Projects

Wirebrush - Personal website

Jun. 2023

- Built a website from scratch using **Rust** in order to host online projects and a professional bio.
- Started with a basic web server backend, then implemented HTML templates with the **Maud** crate for the frontend.
- Created a CI pipeline using **GitHub Actions** to ensure production code status can be monitored accurately at all times.

MEOWDY - One of three group members

Mar. 2022 | Bath, UK

- Participated in a 24-hour **hackathon**, the University of Bath Wackathon 2022.
- Created a concept for an RPG game "MEOWDY" by learning and using the Rust game engine **Bevy**.
- Presented to industry professionals, showcasing strong communication and teamwork skills and winning the prize for "Most Entertaining" project.

Technical Skills

Programming	Rust, Python, Haskell, TypeScript, Java, Git, Bash, C, HTML, JavaScript, SQL, Arduino C
Software	RustRover, IntelliJ IDEA, PyCharm, CLion, LaTeX, Typst, GitHub, MS Teams, Notion, Discord, Slack, Trello

Awards and Achievements

2020	Chair of the Women in Technology society at the University of Bath, using organisation and planning skills to chair a 30 person society
2012-2019	24 total Founder's Day prizes, including 7 prizes in Maths, awarded for academic excellence
2019	Sure Ltd. Women in STEM Bursary, awarded for academic excellence and passion for Computer Science
2018	Mansat scholarship to attend United Space School in Houston, TX, awarded for winning an essay competition on the subject of the future of space exploration