

# Miguel Guthridge

## SKILLS

**Programming languages:** Python, Rust, Java, TypeScript (NodeJS), C, C++

**Frameworks:** Flask, Express.js, Pytest, Jest

**Tools:** Mypy, Flake8, ESLint, Pypi, GitHub Actions, VS Code, Git, GitHub, GitLab, Mkdocs

**Knowledge:** design patterns, Object-Oriented Programming, API design (REST), Agile, Scrum, test-driven development, compilers, Java Virtual Machine

## EXPERIENCE

### UNSW, Sydney | Academic Tutor, COMP1531 Software Engineering Fundamentals

August 2021 - PRESENT

- Teaching and mentoring classes of software engineering students, with a **98% satisfaction rate** for teaching quality
- Helping students develop teamwork and interpersonal skills as well as learn software design principles, so they can thrive in collaborative workplaces

### UNSW, Sydney | Course Administrator, COMP1010 The Art of Computing

February 2023 - PRESENT

- Redesigning and rewriting tutorial and lab content to improve engagement, and inspire enthusiasm in students
- Designing and building an auto-marking system to reduce tutor workloads, and improve the quality of feedback given to students

### Image-Line Software, Remote | QA and Developer Support

September 2022 - PRESENT

- Finding bugs in the software and conveying them to developers to get them fixed efficiently
- Helping to design and refine APIs to improve hardware integration support
- Maintaining technical documentation to allow developers to work efficiently with the API

## PROJECTS

### Ensemble Forum | September 2022 - December 2022

Working in a small team to create an education-focused web forum. The backend is written in type-safe Python, with a thorough suite of integration tests, giving **99% code coverage**.

### Universal Controller Script | August 2020 - PRESENT

Creating software to integrate many kinds of MIDI controller hardware with FL Studio to provide best-in-class device integration, now **used by nearly 200 musicians**. The script currently integrates with 13 devices, and over 10 software instruments.

### VC Compiler | January 2022 - May 2022

Building a program to convert a simple C-like language to Jasmin assembly for running on the Java Virtual Machine, receiving **90% marks**. Code available on request.

## EDUCATION

### UNSW, Sydney | Bachelor of Computer Science

February 2020 - December 2023

Studying computer science, with a focus on tools, systems and languages that facilitate correctness and best practices when designing and writing software. Current **weighted average mark of 82**.