

UDIT SAMANT

Bachelor of Advanced Computing and Bachelor of Science



SKILLS

Proficient Languages - C, Python, Java, SQL, JavaScript, HTML + CSS, R, Go

Intermediate Languages - C++, PHP, Rust, Zig, TypeScript

Technologies and Software - Jira, Git, Jenkins, Vercel, AWS, Linux, Bash, Docker, React + Next.JS, Vue + Nuxt, Unittest, Django, Gradle, Nginx, Temporal

Other - Ethical Web Hacking (XSS, CSRF, DOM Clobbering, Command Injection, PHP Attacks)

EXPERIENCE

Research Intern, Trustworthy Systems Research Group, University of New South Wales, Australia *Feb 2025 - Present*
Technologies: C, Rust, Operating Systems Design and Implementation

- Responsible for porting a static device driver framework to dynamic general purpose operating system

Casual Academic, The University of Sydney - COMP2017 Systems Programming *Dec 2024 - Present*

- Active in creating and planning assessments and tutorial sheets
- Teach and introduce 60 students to Systems Programming, and the C Programming language

Research Student, PMEM Research Group, The University of Sydney (Prof Willy Zwaenepoel), Australia *Jul 2024 - Mar 2025*
Technologies: C, Static Code Analysis

- Conducted research analysing the usage of Linux Kernel read, write and general memory barriers and improving readability of barriers by switching to acquire release barriers, and exploring other novel solutions

Software Engineer Intern - Platforms Access, SafetyCulture *Dec 2024 - Feb 2024*
Technologies: Go, Temporal, TypeScript, React, Redux, Cypress, NextJS

- Implemented a bulk operation, saving customer service representatives hours in manually allocating permissions to users
- Led the end-to-end development of a feature enabling users to set a default organisation on login, enhancing access for 100+ organisations and their users
- Conceptualised and developed a revamped customer-facing page as part of intern initiatives, introducing customisable widgets to enhance user experience and presenting the idea to the company



Associate Data Scientist (Intern), FreeGuides *Oct 2022 - Jan 2023*
Technologies: Firebase, BigQuery, GCP, Python, Sklearn

- Lead data control and management of tour information on the app
- Saved 10+ h/week in manual tour screening, using ML Models to automate assignment of a rating and feedback

PROJECTS

UniTrack, Personal Project   *Jun 2022 - Present*
USYD Coding Fest's Best Undergraduate Junior Project **\$2000**
Technologies: React, Next.JS, Vercel

- Developed a prototype for the first interactive degree planning web-app for Sydney Students
- Simplified the degree planning experience with drag-and-drop ui select, and immediate validation of courses

Crawl, Personal Project   *Jun 2022 - Present*
SYNCS Hackathon Finalist
Technologies: React Native, Expo, Python, Google Maps API

- Developed an app designed to reduce the friction of planning events with friends in 24 hours
- Generated an activity plan on a map, to follow along, given a start location and number of stops

ACTIVITIES

Development Lead, Sydney Computing Society  *August 2024 - Present*
Technologies: React, NextJS, ASP.NET, Cloudflare, Azure

- Design and maintain SYNCS Website, and build infrastructure to enable other society portfolios

Technical Events Coordinator, Google Developers Student Club *Jun 2022 - Aug 2023*

- Co-led a team of 40+ to organise events showcasing emerging technologies, executing four events with 700+ attendees
- Presented at an Introduction to Game Development Workshop for 100+ attendees, at Google, for a Game Jam

EDUCATION

The University of Sydney, Bachelor of Advanced Computing and Bachelor of Science *Mar 2021 - Dec 2025*
Nanyang Technological University, Short Term Exchange *Jul 2022*

- Scholarships: Vice Chancellor's Mobility Scholarship - \$1500

Korea Advanced Institute of Science and Technology, Semester Exchange *Mar 2024 - June 2024*

- Courses Taken: Operating Systems (Graduate), Concurrency in Rust, Web Security Attack Laboratory, Algorithm Design
- Scholarships: Dalyell Mobility Scholarship - \$2500, New Colombo Plan Mobility Grant - \$10000