

Rahul Dange

+61 412 954 045 · contact@rahuldange.com · rahuldange.com
linkedin.com/in/rahuldangeofficial · github.com/rahuldangeofficial
Sydney, Australia · Open to relocation · Full work rights (Australia)

SUMMARY

I'm a computer engineer and Academic Tutor at the University of Sydney. I build and experiment with C/C++ systems, exploring memory management, concurrency, filesystems and language implementation. I'm also strong in JavaScript, building full-stack applications with React, Node.js and databases, from requirements and design through testing and delivery.

TECHNICAL SKILLS

Languages: C, C++, JavaScript, Python, Java, SQL, x86-64 Assembly
Systems: POSIX threads, memory management, atomics, processes, IPC, Linux, GDB, Valgrind
Web & tools: React, Node.js, Express, REST APIs, PostgreSQL, MongoDB, Git, Make, Bash

EXPERIENCE

- Academic Tutor** Jan 2026 - Present
University of Sydney · Part-time
Teach C and systems programming, including memory management, pointers, processes, IPC and concurrency. Support students with debugging and reasoning about program behaviour using GDB and Valgrind.
- System Engineer** Jan 2026 - Aug 2026
Alethi · Part-time, project-based
Contributed low-level software development and systems architecture to System One's MCK1 kernel/compiler initiative. Explored photonic integrated-circuit concepts and prototype models as preliminary research.
- Project Lead & Full-Stack Developer** Aug 2025 - Nov 2025
University of Sydney × Aeoflo · Industry capstone
Built and delivered a GEO auditing application using React, Node.js and Chromium-based page extraction. Grouped 304 candidate parameters by functional behaviour and used LLM-based experiments to investigate their importance and inform scoring.
- Full Stack Engineer** Feb 2021 - Jul 2023
ChessVerst · Part-time
Translated requirements into specifications, wireframes and platform architecture. Developed frontend interfaces, backend services, database functionality and APIs, working across UI/UX, testing and integration.
- Associate Software Engineer** Mar 2022 - Aug 2022
Lyte Calc Technologies Pvt Ltd · Internship
Developed e-commerce functionality using React, Node.js, Express and MongoDB. Completed and handed over a reusable application template and participated in candidate interviews for the project team.

PROJECTS

- MIMFS** | Multithreaded In-Memory File System | C
Built a POSIX-style filesystem within caller-provided memory, without dynamic allocation. Supports directories, hard/symbolic links, sparse files and rename, with C11 atomic allocation and per-inode locks.
- LLFPL** | Low-Level Floating-Point Language | C
Built a numerical expression interpreter that memory-maps source and evaluates without constructing a syntax tree. Reserves storage at startup to avoid heap allocation during evaluation; uses IEEE 754 double precision.

EDUCATION

- University of Sydney** Feb 2024 - Dec 2025
Master of Computer Science (Software Engineering)
Nutan College of Engineering and Research Aug 2019 - Aug 2023
Bachelor of Technology in Computer Science and Engineering
Pune, India

LEADERSHIP & VOLUNTEERING

NCER Hackathon coordinator (2022), mentoring eight teams; Student Advisor (2022–2023); Cyber Security Club founder/coordinator (2019–2022).

PUBLICATION

Revolutionizing Student Engagement: Building a Cutting-Edge Interaction System. ICCIP 2023 / SSRN. DOI 10.2139/ssrn.4625799.