David Sha

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EDUCATION

The University of Melbourne

Melbourne, VIC

Master of Information Technology in Artificial Intelligence

Feb. 2024 - Nov. 2025

The University of Melbourne

Melbourne, VIC

Bachelor of Science in Computing and Software Systems

Feb. 2021 - Nov. 2023

EXPERIENCE

Sincidium Melbourne, VIC

Associate Software Engineer

Jan. 2024 - Present

- Recreated frontend and backend ${\tt Dockerfiles}$ for an 87.8% reduction in image sizes
- Sped up build and deployment times by 90% using BuildKit
- Improved dev experience by configuring a set of linters and formatters (ESLint, Black, isort, Flake8, mypy)

Software Engineer Intern

Sep. 2023 - Jan. 2024

- Introduced a new CI pipeline in repository using GitHub Actions
- Implemented a new dashboard page in Next.js that was well-received by the CTO and CEOs

n8n Remote n8n Expert Auq. 2022 – Present

- Created content (tutorials) for the official n8n YouTube channel amassing 1.5k+ views per week per video
- \bullet Managed 3 n8n instances through both AWS EC2 and Oracle Cloud 2 instances still actively in use
- Created custom n8n node for a client leading to 100+ user downloads from npm registry in total

The Joinary Melbourne, VIC

Developer

June 2021 - Present

- Successfully synchronised customer order data between 3 SaaS tools using Zapier for a large manufacturing client
- Integrated two platforms for Lüp using Python and AWS Lambda syncing over 5000+ participants over two years
- Implemented a business workflow from ideation for Hero HQ which has since been used daily for over 2.5 years

Projects

Algorithms in Action | Open Source, React, CSS, HTML

July 2023 – Oct. 2023

- Successfully implemented algorithm visualisations for Union-Find and 2-3-4 Trees in React
- Utilised SCRUM methodology to manage project and meet deadlines in a team of five

Remote Procedure Call Framework | C. Make, Valgrind

Apr. 2023 – May 2023

- Implemented an RPC framework in C with zero memory leaks
- Utilised Makefile to automate compilation and linking of source files
- Is publicly available for use under MIT license at https://github.com/d4vidsha/rpc-framework

Interests

Personal Blog | Docker, Oracle Cloud, Ghostblog

Dec. 2022 – Present

- Written articles on an array of topics including technology, music and mathematics
- Has over 5.7k monthly impressions with 300+ unique monthly visitors
- Blog was deployed on Oracle Cloud using Docker

Home Lab | Docker, Linux, Proxmox, LXC, restic, rclone

Feb. 2021 - Present

- Created a home lab to self-host a number of apps i.e. password manager, file hosting, VPN server
- Implemented 3-2-1 backup strategy using Backblaze B2, restic, rclone and a Raspberry Pi
- Raspberry Pi runs Pi-Hole (DNS server) and Unbound (DNS resolver) among other services

Technical Skills

Languages: Python, C, JavaScript, TypeScript, Java, Haskell, Prolog, HTML/CSS

Frameworks: React, Next.js, FastAPI

Developer Tools: Git, Docker, Docker Compose, Google Cloud Platform, Oracle Cloud, AWS **CLI Tools**: vim, nvm, pyenv, npm, poetry, make, gcc, clang, gdb, valgrind, nvim, tmux, restic, rclone