

David Sha

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EDUCATION

The University of Melbourne

Master of Information Technology in Artificial Intelligence

Melbourne, VIC

Feb. 2024 – Nov. 2025

The University of Melbourne

Bachelor of Science in Computing and Software Systems

Melbourne, VIC

Feb. 2021 – Nov. 2023

EXPERIENCE

Sincidium

Associate Software Engineer

Melbourne, VIC

Jan. 2024 – Jul. 2024

- Recreated frontend and backend Dockerfiles for an 87.8% reduction in image sizes
- Sped up build and deployment times by 90% using Docker BuildKit
- Proposed and implemented company-wide policy on 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
- Designed and iterated a new dashboard page in Next.js for the company's main product

The Joinary

Developer

Melbourne, VIC

June 2021 – June 2024

- 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

Scheduler (Web Application) | *Fullstack, Python, TypeScript, FastAPI, Vite, Docker*

Jun. 2024 – Present

- Active maintainer of a growing open source task management solution
- Implemented a CI/CD pipeline for automated testing and deployment utilising self-hosted runners, reducing manual overhead and ensuring code stability across releases
- Built and maintained a comprehensive backlog of tasks using GitHub Projects, facilitating clear project direction and efficient contributor collaboration

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

Certified Expert at n8n | *Python, JavaScript, YouTube, Oracle Cloud, AWS*

Aug. 2022 – Present

- Created content (tutorials) for the official n8n YouTube channel amassing 1.5k+ views per week per video
- 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

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>

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

July 2023 – Oct. 2023

- 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

TECHNICAL SKILLS

Languages: Python (expert), C (proficient), Java (fluent), JavaScript/TypeScript (prior experience), Haskell/Prolog

Frameworks: FastAPI (fluent), React (fluent), Next.js, TailwindCSS

Developer Tools: Docker, Kubernetes, AWS, Oracle Cloud, n8n

CLI Tools: git, vim, tmux, restic, rclone, nvm, pyenv, poetry, make, valgrind