David Sha

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EDUCATION

The University of MelbourneFeb. 2024 – Nov. 2025Master of Information Technology in Artificial IntelligenceMelbourne, VICThe University of MelbourneFeb. 2021 – Nov. 2023Bachelor of Science in Computing and Software SystemsMelbourne, VIC

EXPERIENCE

Associate Software Engineer

Sep. 2023 - Present

Melbourne, VIC

Sincidium

- Recreate frontend and backend Dockerfiles for an 87.8% reduction in image sizes
- Speed up build and deployment times by 90%
- Improve developer experience using linters, opinionated formatters
- Develop responsive frontend with Next.js
- Develop backend API endpoints with FastAPI

n8n ExpertFreelance

Aug. 2022 – Present

Remote

- Help small to medium-sized businesses create business-critical workflows using an automation app called n8n
 - Manage servers hosting n8n instances through AWS EC2, Oracle Cloud, and Google Cloud
 - Create custom nodes for n8n to integrate with various APIs
 - Create helpful video tutorials on YouTube to help others learn n8n and programming

DeveloperThe Joinary

Melbourne, VIC

- Delivere custom software solutions to businesses of all sizes
- Use Zapier, Integromat/Make, and n8n to facilitate business automation
- Became qualified as a Zapier Certified Expert

Private Tutor

Self-employed

Jan. 2019 – Present

Melbourne, VIC

- Tutor a total of five students in high school level mathematics (VCE)
- Help these students with their assignments and exam preparation

Projects

Remote Procedure Call Framework | C Programming Language, Make, Valgrind

April 2023 – May 2023

- Implemented a remote procedure call framework in C using sockets in a client-server architecture
- Utilise Makefile to automate compilation and linking of source files
- During development, Valgrind helped to clear all memory leaks and errors
- Official project can be found at https://github.com/d4vidsha/rpc-framework

Home Server | Docker, Linux, Computer Hardware, Proxmox, LXC

February 2021 – Present

- Create a home server to host various services
- Backup with 3-2-1 backup strategy using Backblaze B2, restic and rclone
- Nextcloud (file hosting), a VPN server, Bitwarden (password manager), and many more!
- Utilise Docker and LXC to containerise services
- Utilise Proxmox to manage containers and virtual machines
- Hardware includes (1) Raspberry Pi 4B, and (2) custom-built server, parts independently sourced
- Raspberry Pi 4B runs Pi-hole (DNS server) and Unbound (DNS resolver) among other services
- Custom-built server runs Nextcloud, Bitwarden, and many more services

TECHNICAL SKILLS

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

Frameworks: Node.js, React, Next.js

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