

DAN NICHOLLS

AI Software Engineer



Melbourne, VIC

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/dannichollsdev

WHO AM I?

I'm an AI Software Engineer working in the Computer Vision space, with a strong interest in object detection, tracking, and media streaming (RTSP, WebRTC, etc.). I enjoy building fast, efficient systems and working close to real-world data.

KEY SKILLS

Languages

Go, Python, Javascript

Frameworks

Deepstream, GStreamer, ONNX, PyTorch

Eventing

Kafka, Flink, RabbitMQ

Automation

GitHub Actions, Azure Pipelines

Deployment

Docker, Azure, AWS

OS

Linux, Ubuntu, Arch, Nix

EXPERIENCE

AI Software Engineer — TRU Recognition

Feb 2022 – Mar 2025

- Led a small AI engineering team to build and deploy a scalable inferencing system using NVIDIA DeepStream and Triton, supporting secure, hardware-aware deployments for both cloud and on-premise use cases.
- Managed runtime optimization of object detection models (YOLO, ResNet, CNN) by configuring Triton repositories and tuning performance for real-world tracking in security and retail environments.
- Built and standardized CI/CD pipelines across ~20 microservices using Azure DevOps, increasing deployment reliability and visibility while reducing failure diagnosis time through automated testing and tracking.
- Introduced and led Agile practices across the tech department, running sprint ceremonies, managing cross-functional workflows, and aligning engineering output with sales and product objectives.
- Directed the successful integration of a custom API in partnership with a major telecommunications client, enabling seamless and secure device communication across distributed networks.

Marketing Assistant — Coco Ruby Plastic Surgery

Aug 2016 – Feb 2022

- Designed and maintained multiple surgeon websites using WordPress, React, and JavaScript, improving user experience and increasing brand reach.
- Implemented SEO strategies with tools like Yoast and Google Analytics to improve search visibility and drive traffic through targeted keyword trends.
- Enhanced site performance by optimizing load speed and mobile responsiveness for better accessibility and engagement.

Electronics Engineer Intern — Eco Built Systems

Jun 2018 – Jul 2018

- Revised technical documentation and resolved hardware issues for a hydroponics lighting system, improving installation reliability and clarity for end users.
- Contributed to the design and build of a custom 3D printer, focusing on firmware setup and electronic component troubleshooting during prototyping.
- *Completed as a part of the Swinburne Global Internship Program.*

EDUCATION

Bachelor of Engineering (Electronics & Computer Systems) (Honors)

2015 – 2021

Swinburne University of Technology

Bachelor of Computer Science

2015 – 2021

Swinburne University of Technology

PROJECTS

Project Sourdough

A Go-based ordering system built for friends and family to streamline sourdough orders. Uses clean backend architecture with HTMX, Alpine.js, and Templ for a minimal frontend.

MediaMTX Contributor

Contributed to the open-source MediaMTX media server by resolving issues, supporting users, and submitting minor bug fixes and improvements.

REFERENCES

All references to be supplied upon request.