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# Dan Shea

## Software Engineer

Sydney, NSW

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## SUMMARY

I am currently working as a software engineer at Arista Networks. My interests include operating systems, microkernels, networks, and security.

## EXPERIENCE

### Software Engineer - Arista Networks

Sep 2024 - Present

- Current project: bringing up a PCIe packet switch in Arista's EOS
- Maintaining FPGA control plane and transport infrastructure for Mako family products

### Casual Academic - University of New South Wales

Sep 2023 - May 2024

- Course admin for COMP3231 (Operating Systems), which involved liaising with students to resolve administrative issues and developing a distributed assessment marking infrastructure
- Lab demonstrator for COMP9242 (Advanced Operating Systems), providing mentorship and technical guidance to students

### Software Engineer Intern - Arista Networks

Feb 2023 - May 2023

### Genomics Summer Research Scholarship - Garvan Institute of Medical Research

Dec 2021 - Feb 2022

## PROJECTS

- **Undergraduate Thesis:** Optimised interrupt handling in the seL4 microkernel by implementing a fastpath for IRQ delivery
- **Operating Systems:** Built an event-driven operating system on top of seL4 that includes device drivers, memory management, and process management
- **Computer Architecture:** Designed an application-specific pipelined processor and implemented it in Vivado using VHDL

## EDUCATION

### Bachelor of Engineering (Honours) / Science - University of New South Wales

Feb 2019 - May 2024

Completed a dual degree majoring in Software Engineering and Bioinformatics.

- 1st Class Honours / Distinction
- John Lions Computer Science Honours Award