

## Education

### University of New South Wales, Sydney Australia

Jul. 2018 – May. 2021

*B.S. in Computer Science*

Average Mark for all Comp-Sci courses: 93.8/100, High Distinction

Academic Statement at <https://adamyi.io/transcript>

## Employment

### School of Computer Science and Engineering, UNSW Sydney - Casual Academic

Feb. 2020 – Present

- Taught 500+ undergraduate and postgraduate students Computer Networks (COMP3331/9331), Database Systems (COMP3311), Web App Security (COMP6443/6843), Advanced Operating Systems (COMP9242), Web Data Compression and Search (COMP9319)
- Developed course infrastructure for web application security course with 100+ micro-services in a Kubernetes cluster
- Designed and marked assignment and exam challenges
- Run consultation sessions for C language users to answer questions on Linux's low-level socket syscalls

### Jane Street Capital - Software Engineer Intern

Dec. 2020 – Feb. 2021

- Worked on optimizing performance for internal distributed systems and reduced CPU usage for key routines by 80%
- Rewrote one of the servers for the next generation of one of our core market data system from scratch
- Contributed 12,000+ lines of code to our production OCaml, Java, and Scala codebase

## Activities

### Capture the Flag (CTF) Author

Mar. 2019 – Present

Created 10+ CTF challenges ([adamyi.io/ctfs](https://adamyi.io/ctfs)) for the community, including for SecTalks Sydney, UNSW Security Society, and SECedu

### White Hat Hacker / Cybersecurity Researcher

Feb. 2015 – Present

Discovered 10+ vulnerabilities in various bug bounty programs like Atlassian's

### Google Developers Community Programs - Translator (Volunteer)

Jun. 2016 – May. 2018

Reviewed and translated Google's dev videos, docs, and blog posts. Invited to Google I/O as a Community Partner

## Side Projects

### CTFProxy (Kubernetes, Docker, Bazel, Golang, Python, Jsonnet)

[github.com/adamyi/CTFProxy](https://github.com/adamyi/CTFProxy)

Scalable CTF infrastructure, with a BeyondCorp-like zero-trust network and simple infrastructure-as-code configuration. This was used for SECedu CTF 2019 and UNSW's Web Application Security (COMP6443/6843) course in 2020

### MessageOnTap (Java, Android, HCI, NLP)

[github.com/MessageOnTap](https://github.com/MessageOnTap)

A development framework for developers to implement intelligent plugins for instant messaging apps by suggesting actions based on chat message semantics (research project at HCI, Carnegie Mellon University)

### Productimon (Golang, C, C++, JavaScript)

[github.com/productimon/productimon](https://github.com/productimon/productimon)

A cross-platform activity/usage/screen time tracking and analysis tool that supports Linux, Windows, macOS, and Chrome OS/Chromium OS with a cross-platform core codebase that's easy to extend to other platforms

### MUNPANEL (PHP)

[github.com/munpanel/MUNPANEL\\_v1](https://github.com/munpanel/MUNPANEL_v1)

An online high school conference registration system, which had served 3 conferences, 170+ registered schools, 2,000+ registered users, and 75,000+ USD cash flow

And many more, check them out on [adamyi!](https://adamyi.com)

## Awards

### Dean's Award

2020

**UNSW Faculty of Engineering**, for 100 best performing student across the entire School of Engineering.

### 1st Place

2019

**UNSW CSE Performance Prize for Year 2**, for the single best performing second year CSE student.

### CommBank Cyber Prize

2019

**Commonwealth Bank of Australia**

### 2nd Place

Oct. 2018

**Cyber Security Challenge Australia (CySCA)**, run by Australian Government (Australian Cyber Security Centre, Australian Signals Directorate, AustCyber), Telstra, PwC, Cisco, Microsoft, Commonwealth Bank, Splunk, BAE Systems, HackLabs

### Gold Medal

Apr. 2015

**International Exhibition of Inventions of Geneva**, run by Swiss Federal Government