

# Thomas Hill Almeida



tommoa256@gmail.com



+61 487 897 878



tommoa



blog.tommoa.me



## Projects

### **relibc** | Maintainer

- C standard library written entirely in **Rust**
- wrote the `stdio.h` implementation

### **small** | Author & Inventor

- stack-based string implementation in **Rust**
- usage in **ion shell** increased performance by **30%**

### **process memory injector** | Author & Inventor

- library for manipulating the memory of other processes in **Rust**

## Experience

### **University of Western Australia** | unit tutor

February 2020 – June 2020

- tutored 30 students in data structures and algorithms using **Java** under **Prof. Amitava Datta**

### **Arista Networks** | software engineering intern

Supervisor: Alex Webster | November 2019 – February 2020

- created a custom Linux image using **Yocto** for network enabled bootable USB drives
  - reduced theoretical fix-time for devices affected by corrupted images by approximately 1 day
  - reduced theoretical regression test time by 10 minutes
- developed tools in **Python** to search for vulnerabilities in Arista operating systems
  - opened approximately 1500 bugs to be triaged

### **Arista Networks** | software engineering intern

Supervisor: Alex Webster | January 2019 – February 2019

- developed tools in **Python** to discover layer 1 network topology, allowing for previously impossible topology analysis
- researched and developed methods in **Python** for creating network-accessible USB boot drives to reduce testing time

### **Talis Consultants** | undergraduate technician

Manager: Granger Bennett | 2016 – 2018

- developed noise management solution **Nexus** in **C#**
  - in use by Fortescue Metals Group, Alcoa and others in daily operations

## Education

### **Masters** | **Software Engineering**

University of Western Australia | 2019–Nov 2020

- GPA: 5.6
- WAM: 72.4%

|                               |             |
|-------------------------------|-------------|
| Software Design Project       | 90%         |
| Testing and Quality Assurance | Distinction |
| Computational Modelling       | Distinction |

### **BSc** | **Software Engineering**

University of Western Australia | 2017–2019

- GPA: 5.5
- WAM: 70%

|                                |             |
|--------------------------------|-------------|
| Data Structures and Algorithms | 89%         |
| Networks and Security          | 91%         |
| Digital Embedded Systems       | 91%         |
| High Performance Computing     | Distinction |

## Other

### **Computers**

- UWA Programming Competitions Society

|                  |                |
|------------------|----------------|
| vice president   | 2019 – 2020    |
| secretary        | 2020 – Present |
| committee member | 2018 – Present |
| lecturer         | 2017 – Present |
| competitor       | 2017 – Present |
- University Computer Club

|                |             |
|----------------|-------------|
| treasurer      | 2019 – 2020 |
| vice president | 2018 – 2019 |
- ICPC
  - Divisionals finalist 2019
  - Divisionals finalist 2018
  - Divisionals finalist 2017

### **Music**

- Audition choirs
  - The Winthrop Singers

|              |                |
|--------------|----------------|
| bass section | 2017 – Present |
|--------------|----------------|
  - West Australian Chamber Choir

|                     |             |
|---------------------|-------------|
| bass section leader | 2019 – 2020 |
|---------------------|-------------|

References available upon request