# Matthew Barber

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# **Profile**

I am a Computer Science student proficient in numerous programming languages and tools. Beyond writing functioning code, I take pride in the maintainability and modularity of my work. I can work efficiently alone, being a disciplined and resourceful individual, always eager to improve my craft. With my employment and volunteering experiences necessitating cohesive teamwork, I enjoy working with and learning from my peers, and can communicate my own ideas succinctly.

All of my projects can be found at github.com/Honno. Examples of my work include ↓

# quine.gz

Gzip file that extracts to an exact copy of itself, ad infinitum. Self-referential CRC was bruteforced by a multiprocessing **Python** script.

#### MTR Network Info Centre

**Java** program for finding out information about Hong Kong's trains. Required implementing a graph data structure and the BFS algorithm.

# University events platform

**NodeJS** site for students to manage events. Uses **Express** for routing, **Pug** for templating, and **MongoDB** & **Mongoose** for data storage.

# Space Hermit

POV animation of a cockpit in space, made with **Java** & **LWJGL**. Includes custom bobbing and shake-cam SFX code.

# **Twitter Anew**

**Python** CLI tool to manage accounts following too many users. Utilises the Twitter API and the platform's Lists feature.

# **Expert system**

**Common Lisp** implementation of forward chaining for an inference engine.

# **Employment**

Starbucks

Café chain

September 2018—February 2019

Preparing various beverages on request with speed, quality and consistency. Working cohesively with team members to make all aspects of the operation run smoothly. Taking customers orders, responding to enquiries and remedying any issues. Responsible for quality control and the cleanliness of the store.

# **Adventure Island**

Amusement park

July-September 2017 & July-September 2018

Serving customers tickets and wristbands to gain access to the rides and facilities of the park. Explaining the park's various offerings and responding to any enquiries.

Regularly communicating with team members and leaders to meet the changing needs of the day. Mitigating conflict when service was refused due to unreasonable requests or facility misconduct.

# Volunteering

# **Southend Churches Winter Night Shelters**Overnight homeless shelter network for the winter months

November—April since 2015

Evening and morning shift volunteer assisting guests and other volunteers with various tasks. Preparing venue before guests arrived and tidying up the venue after they left.

On-call for local shelter when they did not have enough overnight volunteers.

#### **Off The Streets**

September 2018—February 2019

Overnight homeless shelter operating year-round

Full shift (evening to morning) volunteer, responsible for maintaining peace in the shelter. Connecting with guests to assist integrative steps such as finding work and housing. Dealing appropriately with problematic behaviour from guests.

# Education

2016 A-Levels

Aston University

September 2016-

Studying BSc Computer Science, expected graduation June 2020.

# **Southend High School for Boys**

September 2009-June 2016

Computing (B), Mathematics (B), Physics (C).

**2014 GCSEs** 11 A\*-C grades inc. English, Maths and Science.