

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 ↴

coinflip

Statistical tests for randomness in Python. Features a Hypothesis-powered testing suite for the randomness tests themselves.

Financial analysis stack

Demonstration of using distributed data (HDFS) and parallel processing (Spark) for stock market regression modelling in Python.

Events site

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

Epitope classification

Essay on data mining a protein dataset. A bespoke Python script preprocessed data, and Weka was used for classification modelling.

quine.gz

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

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 & 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

Overnight homeless shelter operating year-round

September 2018–February 2019

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

Aston University

Studied BSc Computer Science; waiting for final results end of September.

September 2016–September 2020

Southend High School for Boys

2016 A-Levels

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

2014 GCSEs

11 A*-C grades incl. English, Maths and Science.

September 2009–June 2016