

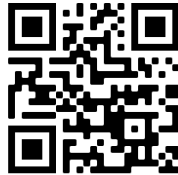
Aaron Paterson

Compsci Undergrad

github.com/mayhd3

apaterson@qu.edu

1 860 515 0499



WORK EXPERIENCE

- **Picnic Score** picnicscore.com
Backend Developer
 - Improved and created API services to supplement a mature data pipeline
 - Automated content detection and deletion from multiple online sources
 - Maintained code through extensive refactors and deprecations, making heavy use of version control and unit tests to simplify tedious processes*Summer 2021 · Node.js, MongoDB, Python, Google Cloud Platform, Kubernetes, Docker, Terraform, and Go*
- **Flamig Farm** flamigfarm.com
Web Developer
 - Designed and published a "Sponsor an Animal" page for an existing WordPress website in response to loss of business during Covid-19
 - Automated creation of separate mailing lists for the sponsors of each animal, a personalized thank you message, and a gift link feature
 - Provided weekly in-person training*Summer 2020 · WooCommerce, VisualComposer, Auto-Hotkey, ECMAScript, PHP, and CSS*
- **Complexity Rooms** git.io/fjnhnt
Electronic Technician
 - Designed, fabricated, programmed, installed, and documented four Arduino-based escape room puzzles
 - Estimated and adjusted budgets and deadlines in response to faulty parts and changes in time constraints
 - Implemented IoT hardware including RFID readers, Hall Effect sensors, Piezo pickups, boost/buck converters, RS232 transceivers, and digital LED strips*Summer 2019 · C++, Arduino.h, and FastLED*

EDUCATION

- **B.Sc. Computer Science and Mathematics**
Quinnipiac University
3.3 CGPA / 3.7 in-major GPA
Class of 2022 · Quinnipiac Computing Club, Student Advisory Board, Slackline Club

STUDENT EXPERIENCE

- **IoT Independent Study** git.io/Jtxbz
 - Designed and programmed a Bluetooth Low Energy presence detection meshnet on the ESP32 platform
 - Collaborated with other independent study members to separately design compatible 3D printed hardware and a database REST API*Winter 2021 · esp-mdf, Plug.Cowboy, and Eclipse Paho*
- **FIRST Robotics** git.io/JLkYr
 - Lead a programming team of Simsbury High School students, using a command-based API to learn and implement best practices
 - Coordinated with mentors and several specialized teams to set and meet budgets and deadlines*Winter 2018 · Java 8, WPILib, and GRIP*

RESEARCH EXPERIENCE

Python, NumPy, pandas, Colab, and Matplotlib

- **TNTech NSF REU** git.io/JzmZB
 - Assisted graduate and PhD researchers in applying machine learning models to electricity theft detection
 - Presented progress and results on a weekly basis*Summer 2021 · Keras, Adversarial Robustness Toolbox*
- **DIPC Physics Project** git.io/JEbDV
 - Queried an atomic simulation database of atomically thin crystal bilayers to identify broken gap heterojunctions predicted by density functional theory
 - Created interactive visualizations to aid in the design and analysis of Van der Waals heterostructures*Winter 2021 · Computational 2D Materials Database, Atomic Simulation Environment, Quantum ESPRESSO*

COMPETITION EXPERIENCE

- **Dyalog APL Competition** git.io/JzmZ3
 - Placed third in Phase II*Winter 2021 · Dyalog APL*
- **IBM Master the Mainframe** .. git.io/JOHCB
 - North American Regional Winner*Winter 2021 · JCL, Enterprise COBOL, REXX, TSO, Docker, and Ansible*
- **College Tech Challenge** git.io/fpZTb
 - Placed first with two other Quinnipiac students*Winter 2019 · GitHub, VSCode Live Share, Vue.js, DigitalOcean, and Heroku*