

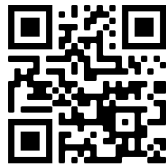
# Aaron Paterson

Compsci Undergrad

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## WORK EXPERIENCE

- **Picnic Score** ..... [picnicscore.com](https://picnicscore.com)  
Backend Developer
  - Created API services that automated content detection and deletion from multiple online sources
  - Adhered to agile methodologies by way of Scrum to maximize productivity while working remotely
  - Leveraged the Google Cloud Platform and demonstrated its applications to live audiences
  - Maintained code through extensive refactors, using version control, continuous integration/deployment, and unit tests to streamline tedious processes*Summer 2021 · Node.js, MongoDB, Python, Kubernetes, Docker, Terraform, Go, Jira, and Confluence*
- **Flamig Farm** ..... [flamigfarm.com](https://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 the creation of separate mailing lists, a personalized thank you message, and gift links
  - Provided weekly in-person training*Summer 2020 · WooCommerce, VisualComposer, AutoHotkey, ECMAScript, PHP, and CSS*
- **Complexity Rooms** ..... [git.io/fjnht](https://git.io/fjnht)  
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 hardware including protoboards, digital LED strips, and RFID/Hall Effect/Piezo sensors*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](https://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](https://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](https://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](https://git.io/JEbDV)
  - Queried an atomic simulation database of 2D materials to identify broken gap heterojunctions in crystal bilayers by applying 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](https://git.io/JzmZ3)
  - Placed third in phase II*Winter 2021 · Dyalog APL*
- **IBM Master the Mainframe** ... [git.io/JOHCB](https://git.io/JOHCB)
  - North American Regional Winner*Winter 2021 · JCL, Enterprise COBOL, REXX, TSO, Docker, and Ansible*
- **College Tech Challenge** ..... [git.io/fpZTb](https://git.io/fpZTb)
  - Placed first with two other Quinnipiac students*Winter 2019 · GitHub, VSCode Live Share, Vue.js, DigitalOcean, and Heroku*