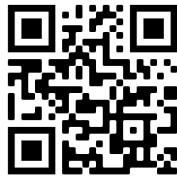# Aaron Paterson
Software Engineer

github.com/MayCXC

apaterson@pm.me

1 860 515 0499

WORK EXPERIENCE

HTML, CSS, JS, Docker, Kubernetes, Git, Terraform

- **Zonos** .... zonos.com
  Software Engineer
  - Informing international shoppers with duty & tax cost and shipment rating APIs
  - Upgrading Dropwizard REST endpoints with Spring Boot and GraphQL using DGS
  - Collaborating with Agile Methodologies and VCS via Scrum and Git

  Since 2022 · GraphQL, Java, DGS, Spring Boot, Gradle, PostgreSQL, Kafka, AWS (S3,SSM,RDS,MSK)

- **Picnic Score** .... picnicscore.com
  Software Engineer
  - Created API services that automated content detection and deletion from multiple online sources
  - Leveraged the Google Cloud Platform and demonstrated its applications to live audiences
  - Maintained code through extensive refactors, making heavy use of version control, CI/CD automation, and unit tests to maintain code stability

  Summer 2021 · Python, Go, Node.js, Typescript, Puppeteer/Playwright, MongoDB, GCP (Pub/Sub,Cloud Run)

- **Flamig Farm** .... flamigfarm.com
  Web Developer
  - Designed and published a "Sponsor an Animal" section for a 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 · PHP, WooCommerce, AutoHotkey

- **Complexity Rooms** .... git.io/fjnht
  Electronic Technician
  - Designed, fabricated, programmed, installed, and documented four Arduino-based escape room puzzles
  - Estimated and adjusted budgets and deadlines
  - Implemented hardware including protoboards, digital LED strips, RFID, Hall Effect, and Piezo sensors

  Summer 2019 · C++, Arduino.h, FastLED

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 study members to design 3D printed hardware and a database REST API

  Winter 2021 · esp-mdf, Plug.Cowboy, 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 other specialized teams to set and meet budgets and deadlines

  Winter 2018 · Java 8, WPILib, GRIP

RESEARCH EXPERIENCE

Python, NumPy, pandas, Colab, Matplotlib

- **Tennessee Tech NSF REU** .... git.io/JzmZB
  - Assisted graduate and PhD researchers in applying machine learning models to electricity theft detection
  - Generated diagrams for an advisor's PhD thesis
  - 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 2D materials to identify broken gap heterojunctions in crystal bilayers with application of 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 ESSPRESSO

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, Ansible

- **College Tech Challenge** .... git.io/fpZTb
  - Placed first with Quinnipiac and UConn students

  Winter 2019 · GitHub, VSCode Live Share, Vue.js, DigitalOcean, Heroku