Shawn Prather

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EDUCATION

Colorado School of Mines   **2024-Present (Expected Graduation 2026)**
Bachelor of Science; Computer Science for Robotics and Artificial Intelligence   GPA Pending

Red Rocks Community College   **2023-2024**
Associate of Engineering   3.95 GPA

Warren Tech Game Development Program   **2021-2022**
Trained in a collaborative student environment creating multiple games primarily in Unreal Engine and Unity

WORK EXPERIENCE

Aria Lab Undergraduate Research (Autonomy, Robotics, & Intelligent Algorithms Laboratory)   **Sep. 2024-Present**
RTK GPS Research   Golden, CO

- Developing an RTK-based Global Positioning System to attach to robots and drones in order to track and test different SLAM algorithms in different weather conditions such as snow and rain
- Communicate with people in the same team to effectively collaborate and design a working system that can be integrated into the lab's bigger work ecosystem
- Working with other teams to make sure systems integrate seamlessly to allow for successful pipelines for testing different algorithms and for solving a variety of problems

Code Ninjas   **Dec. 2019-Present**
Coding Instructor   Arvada, CO

- Developed and currently manage multiple Linux-based game servers, significantly increasing company revenue by creating new streams of income
- Teach fundamental and advanced coding concepts and logic to a wide range of students with varying skill levels
- Oversee setup and maintenance of computer hardware and software to allow students to succeed
- Evaluate and troubleshoot student projects, providing feedback and further guidance to aid in students' development
- Collaborate with managers and other instructors to develop lesson plans to enrich students learning

SKILLS

- C++, Libcurl, JSON, C#, C, Java, Python, PyTorch, CUDA, Make, CMake
- PCB Design, Soldering, Electrical Modeling, Circuit Design, Esp8266, Arduino, SPIFFS, HTTPS
- JavaScript, HTML, CSS, Tailwind, React, Three.js
- Git, GitHub, Linux, Unix, Bash Scripting, Docker
- Blender, SolidWorks, Substance Painter, Substance Designer, 3D Printing, Photoshop, LaTeX
- Public Speaking, Entrepreneur, Conversational Japanese, Unity, Unreal Engine, Blueprint

PROJECTS

Object Detection Neural Network (Current)
Developing a neural network using PyTorch and CUDA to identify objects, with plans to integrate multiple photo inputs to estimate distance. Ultimately, this will hopefully enable a drone the capability to perform avoidance and pathfinding

Portfolio Website
Website made with React, Tailwind CSS, and Three.js to showcase current and future projects

IoT Alarm Clock
IoT-based alarm clock that uses a custom-designed PCB, Electronics, and Housing with an ESP8266 to connect to WiFi and host a webserver for control of alarms, alarm ringtones, time, and region info

Accessible Climbing Holds
Developed rock climbing holds designed for individuals with visual impairments, with assistive lighting for directional guidance and vibration feedback to indicate incorrect climbing routes then presented the project and got feedback from affected individuals

INTERESTS

Game Development, Learning Japanese, Video Editing, 3D Modeling