Shawn Prather

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EDUCATION

Colorado School of Mines   **2024-2026 (Expected Graduation 2026)**
Bachelor of Science; Computer Science for Robotics and Artificial Intelligence   4.0 GPA - Dean's List

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

WORK EXPERIENCE

Automated Grade Management and Migration System   **December 2024-Present**
Full-stack Developer   Golden, CO

- Collaborating with a team of five under the guidance of a professor to develop a robust grade migration service available to all of Colorado School of Mines, helps to improve system integration over academic platforms
- Designed to enable seamless grade migration between coursework applications, reducing inconsistencies and streamlining workflows for teachers, students, and teaching assistants (TAs)
- Implements a REST API architecture with full CRUD functionality and Authentik for secure user authentication
- Developed using agile sprints, with containerized Spring Boot (Java), PostgreSQL, React-Typescript, and CI/CD pipelines running multi-container deployments on Microsoft Azure

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

- Developing an RTK-based Global Positioning System to attach to robots and drones for tracking and testing different SLAM algorithms in varied weather conditions, such as snow and rain
- Achieved a 40 cm GPS accuracy for testing, enhancing the precision and reliability of SLAM in challenging environments
- Collaborating effectively with team members to design and integrate the system into the lab's larger work ecosystem
- Ensuring seamless integration with other teams' systems to enable successful pipelines for testing algorithms

Code Ninjas   **December 2019-August 2024**
Coding Instructor   Arvada, CO

- Developed and managed multiple Linux-based game servers, allowing for new revenue streams
- Enabled the location to remain open 17% more of the time by developing game servers that supported additional events and activities, driving increased engagement and revenue
- Taught coding concepts and logic in C++, JavaScript, Python, and C#, while evaluating and guiding student projects to support their development

SKILLS

- **Programming Languages**: C++, C#, C, Java, Python, JavaScript, HTML, CSS, Bash Scripting
- **Frameworks and Libraries**: PyTorch, CUDA, React, Three.js, Tailwind, Spring Boot, Oauth2
- **Development Tools**: Docker, Git, GitHub, Postman, Valgrind, GDB, Make, CMake
- **Databases and Platforms**: PostgreSQL, AWS, Microsoft Azure, HTTPS
- **Other Skills**: Public Speaking, Linux/Unix, Conversational Japanese, Video Editing, 3D Modeling, Game Development

PROJECTS

Game Build Sharing Platform
Developed a web application utilizing OAuth2 for user authentication, enabling users to publish, share, upvote, comment on, and download custom game builds. Built with a containerized Spring Boot backend, PostgreSQL on Amazon Web Services, and a React frontend, providing scalable architecture and a clean layout to enhance user experience

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

IoT Alarm Clock
IoT-based alarm clock with a custom-designed PCB, electronics, and housing using an ESP8266 to connect to WiFi and host a webserver for controlling alarms, ringtones, time, and region info from any internet-connected device