

Shawn W. Prather

contact@shawnprather.dev | shawnprather.dev | github.com/Swiffels | (720) 965-4760 | linkedin.com/in/shawn-prather

Education

Colorado School of Mines – Golden, CO	Aug 2025 – Dec 2026
Master of Science in Machine Learning	
Colorado School of Mines – Golden, CO	Aug 2024 – May 2026
Bachelor of Science in Computer Science	GPA: 3.87
Red Rocks Community College – Lakewood, CO	May 2023 – Aug 2024
Associate of Science in Computer Science	GPA: 3.96

Experience

Software Developer Intern, Lockheed Martin – Littleton, CO May 2025 – Present

- Refactored and optimized legacy code by migrating to **C#** using **.NET Core** best practices and **LINQ**
- Implemented more efficient algorithms to reduce program execution time by **35%** and to minimize future technical debt
- Built a file-integrity validation process using **XML Signatures**, **SHA-384 hashing**, and **RSA-SHA verification**, catching **100%** of simulated tampering attempts and malicious files during testing
- Utilized **Bazel**, **Jenkins**, **RPM packaging**, and **Podman** to effectively build and test systems to run automated and simulated real-world tests to identify and solve security bugs
- Participated in **PI planning** and **Wall Walks**, worked through stories in **Jira/Confluence** within **Agile Scrum** teams

Undergraduate Researcher, Aria Lab @ Mines – Golden, CO Aug 2024 – Present

- Engineered a **Docker-powered RTK-GPS** solution, achieving **2 cm accuracy** for use on robots and drones to track and test different **SLAM algorithms** in challenging weather such as snow and rain
- Automated remote station setup and pipelines to allow for communication with **currently 4** hard to reach base stations and on the ground robots as well as seamless integration into current **SLAM** evaluation workflows

Full-Stack Developer, Packtrain – Golden, CO Dec 2024 – May 2025

- Scaled software alongside 4 other students from an **initial 900 student group** to **supporting 450+ instructors and over 7,500 students** providing efficient multi-domain course grading and management
- Designed and implemented **REST APIs** with **CRUD** functionality using **Spring Boot (Java)**, **PostgreSQL**, **React-Typescript**, and deployed via **containerized CI/CD pipelines** on self-hosted servers

Coding Instructor, Code Ninjas – Arvada, CO Dec 2019 – Aug 2024

- Developed and maintained eight **Linux-based servers** to host learning and game activities, increasing open hours by **17%** and generating new event revenue
- Tutored over **50** students across **C++**, **JavaScript**, **Python**, and **C#**, helping to increase their project grades by **30%** and guide them from beginner to advanced proficiency in coding concepts and best practices

Skills

Coding Languages: C++, C#, C, Java, Python, Go, JavaScript, HTML/CSS, Bash, React-Typescript

Technologies: PyTorch, Spring Boot, Docker, Git, Kubernetes, PostgreSQL, AWS (S3, RDS, EC2)

Other Skills: Agile, Scrum, Jira, TDD, Linux/Unix, Conversational Japanese, 3D Modeling, PCB Design

Security Clearance: Secret

Projects

Full-Stack Neural Network with User Feedback (In Progress)

- Engineered a real-time, **user-driven neural network** for Super Mario Kart that trains on live feedback given by users
- Developed the full-stack interface with **Django**, **Next.js/React**, and **RabbitMQ** to stream gameplay data, handle API requests, and to relay votes to the model

NP-Hard Competition Solution

- Collaborated in a 3-person, 72-hour **NP-Hard Hackathon** to tackle the Tents-and-Trees problem
- Developed a **multi-threaded genetic algorithm** in **C++** using **Agile** optimizing each iteration to less than **0.1 seconds** for each **100,000 tiles** which secured a top **20%** in the competition

IoT Alarm Clock

- Designed **custom PCB** with an **ESP8266 chip** to host a web server and download updates with **100% uptime**
- Built **browser-based UI** control panel for remote alarm scheduling, ringtone selection, and region/time zone setup