

# PRESTON WALRAVEN

## Software/Computer Engineer



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I am an engaged and versatile computer scientist with a strong foundation in math, logic, and problem solving. I take pride in my technical abilities - but also in my effective communication, organization, and my propensity to develop lasting relationships with both coworkers and clients.

Category	Some Experience	Proficient	Adept
Languages	C#, Rust, OCaml, MIPS, Verilog HDL	JavaScript, HTML, CSS, R	C, C++, Python, Java, SQL, Bash
Frameworks, Platforms, Libraries	Tensorflow, Matplotlib, Docker, Unity	RTOS, scikit-learn, AWS, Ceedling, GTest, JUnit	Numpy, Linux, WSL
Development Processes, Tools	Waterfall, Continuous Integration	Test Driven Development, Doxygen	Agile, Scrum, Unit Testing, Git
Knowledge Areas	Discrete Math, Digital Logic, Operating Systems	Probability, Stats, LinAlg, Deep & Classical ML, Info Security	Embedded Systems, Computer Networks, OOP

## EXPERIENCE

8/2021 – Present  
part time

### Lead Teaching Assistant - Data Structures

Colorado School of Mines

Coordinated a team of 11 TAs for grading and class support efforts. Interfaced with the instructors to contribute to course direction decisions and to keep the course material up to date. Provided support for 250+ students through office hours, in-class lab guidance, and grading feedback.

8/2021 – 12/2021  
part time

### Software Engineer

Imaged Reality

Client Liaison and Group Leader for CS Field Session. Guided a team of 4 peers to develop plugin functionality for 3DGaia, a 3D platform for geoscience collaboration and education in virtual reality. Worked in Unity to accommodate geodetic file types, perform coordinate conversion calculations applied to meshes, and add user facing features to integrate geological tools into the product.

6/2021 – 8/2021

### Software Engineering Intern

Syncroness

Continued development on the visitor check-in notification system that leverages AWS, focusing on real world customer usage and product reliability. Performed unit, system, and user testing to ensure quality.

1/2021 – 5/2021  
part time

### Teaching Assistant - Data Structures

Colorado School of Mines

Guided students in office hours and in-class labs, gathered valuable feedback for improving the course, and provided support for struggling students through tutoring.

6/2020 – 8/2020

### Software Engineering Intern

Syncroness

Ensured software quality by creating and updating unit tests for an Embedded C device. Migrated and archived old code repositories to reduce clutter and storage costs. Piloted development on a visitor check-in notification system that leverages AWS IoT, Lambda, DynamoDB, and SES.

## EDUCATION

2019 – Present

### BS in Computer Science - Computer Engineering

Colorado School of Mines

- 4.0 GPA, Dean's List every semester
- Accepted into the CS Grad Program.
- Focus areas in Embedded Systems, Machine Learning, and Data Structures.
- Thorson Honors Student

## LANGUAGES

English - native  
Spanish - proficient

## HOBBIES

Camping, Fishing, Making Music,  
Building Guitar Pedals, Biking.

## ACHIEVEMENTS

Boy Scouts of America Eagle Scout