

# Mitchell Waibel

GRADUATE STUDENT · COMPUTER SCIENCE

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## Education

### Colorado School of Mines

M.S. IN COMPUTER SCIENCE *GPA: 4.0*  
• Expected graduation: May 2018

### Colorado School of Mines

B.S. IN ENGINEERING PHYSICS *GPA: 3.56*  
• Graduated: May 2017  
• Graduated Cum Laude  
• National Dean's List - 4 Semesters  
• Honor Roll - 2 Semesters

## Technical Skills

**Advanced** C++, C, Linux Terminal,  
Java, Python,  $\LaTeX$ , LISP,  
JavaScript, HTML5,  
Android Application

**Intermediate** OpenGL, Mathematica,  
MIPS Assembly

**Basic** Arduino, PostgreSQL  
Analog & Digital Circuits,  
LabView, SolidWorks

**General** Public speaking,  
technical writing,  
independent research

**Tools** Microsoft Excel,  
Word, and PowerPoint

## Coursework

### GRADUATE

Advanced Computer Architecture  
Game Theory and Networks  
Theory of Computation

### UNDERGRADUATE

Senior Design  
Operating Systems  
Algorithms  
Data Structures  
Software Engineering  
Computer Graphics  
Discrete Mathematics  
Database Management  
Computer Organization  
Mobile Application Development  
Game Development

## Employment

### SEAKR Engineering

*Centennial, Colorado*

SOFTWARE ENGINEERING INTERN

*May 2017 - August 2017*

- Ported a proprietary software package from VxWorks to Linux. The software also moved to a new architecture, which required more rewritten code.
- Installed PetaLinux on the flash memory of a MicroZed development board.

### MasterCraft Truck Equipment, Inc.

*Englewood, Colorado*

WAREHOUSE WORKER

*Summers, 2015 - 2016*

- Learned about small scale installation processes
- Received and processed 2-3 shipments per day
- Delivered the finished vehicle to the customer

## Team Project Experience

### Theory of Computation

TEAM MEMBER

We spent three weeks developing and coding a LISP program that takes in input, potentially a regular expression, and converts it to a Discrete Event System and which can then be solved with a route through the Discrete Event System using graph traversal methods.

### Senior Design

C++ PROGRAMMER

*August 2016 - May 2017*

Lightning creates atmospheric events in the ionosphere, called Elves, that can be observed at the Pierre Auger Observatory in Argentina. I helped develop a set of modules to work with existing modules that take weighted photon position data from a simulation of an Elve and simulate what that would look like in the detectors at the observatory.

### Physics Field Session

STUDENT

Six week long session where we learn hands on skills such as working precision machinery in a shop, handling different types of vacuums, designing analog circuits, construction and operation of lasers, and how to program in several different languages.

## Extracurricular Activity

### Grow with Google Challenge Scholarship

SCHOLARSHIP RECIPIENT

*January 2018 - PRESENT*

I was offered a scholarship for front-end web development that allows me to learn website development with JavaScript and HTML5. This challenge scholarship can lead to a longer course of the same subject.

### C++ Asteroids Clone

PROGRAMMER AND DEVELOPER

*May 2017 - PRESENT*

In my spare time, I use the SFML library in C++ to build a clone of Asteroids from scratch. Most of the gameplay is implemented, but I'm still working on the menu and other systems. This project as it is can be found on my GitHub page under Corvus Praedo.