

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 2019

Colorado School of Mines

B.S. IN ENGINEERING PHYSICS GPA: 3.56

- Graduated: May 2017
- Graduated Cum Laude
- National Dean's List - 4 Semesters

Technical Skills

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

Intermediate OpenGL, Mathematica,
MIPS Assembly, MatLab

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

General Public speaking,
technical writing,
independent research

Tools Microsoft Excel,
Word, and PowerPoint

Coursework

GRADUATE

Computer Vision
Simulation
Applied Algorithms
Theory of Computation
Advanced Computer Architecture
Game Theory and Networks

UNDERGRADUATE

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

Employment

Ricoh

Boulder, Colorado

IMAGING AND COLOR SCIENCE INTERN

May 2018 — August 2018

- Developed the backend software to capture images in real-time and send it directly to the GPU (tested up to 3.6 GB/s).
- Created the GUI to control the camera and paper drum to save images of various size or stream them to the monitor in real-time.
- Started looking into various ways to save 30 minutes of data in long-term storage.

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

Mobile Application Development

OPENGL ES DEVELOPER

We work through the entire process of creating an Android application from scratch using proper design with application fragments and activities. Our app is a Dungeons and Dragons character sheet which allows the user to keep track of their players stats. I focussed on the dice-roller that the player can use to roll realistic-looking dice.

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.

Extracurricular Activity

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.