# Samuel Warfield

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## Education

**Colorado School of Mines** **Expected B.S. May 2019**

- Computer Science with Honors Minor ***GPA 3.033***
- Second Semester Junior Dean's List: 3/4 Semesters

## Work Experience

**Global Communications Group, Inc.** **Centennial, CO**

Intern May 2016 - August 2017

- Tasked with simple database entry and profiling of worldwide data centers and data services.
- Created suite of programs to automate lengthy processes ultimately finishing the company project three weeks ahead of schedule.
- Automation code and all 400+ portfolios are still in production servicing customers.

**CSM CECS Garage** **Golden, CO**

Machine Shop Assistant Sep. 2016 - Current

- Trained for precision milling and lathe techniques, so that I could help oversee the shop.
- Alternative fabrication methods such as laser cutting and 3D printing.
- Created system for managing print jobs and monetary transactions.

**CSM Outdoor Rec Associate** **Sept 2017 - Jan 2018**

- Managed Inventory and point of sales, also teaching customers working knowledge of their gear.

## Strengths and Skills

**Computer:** Python, Java, C++, Unix Command Line, Git, Agile Development Haskell, Common LISP, Android Development, Raspberry Pi, Latex, SMTP, Mathematica, Microsoft Office, GIS, Arduino

**Character:** Incredibly calm under pressure, team skills, problem solver

## Notable Projects

**Mines Association for Computing Machinery (ACM)** **2017 - Current**

- ACM is the second of the two Computer Science clubs at Mines specializing in tech talks from industry professionals and Mines Alum. (**Treasury Officer 2018 - Current**)

**University Innovation Fellow** **2016 - Current**

- Specific training in entrepreneurship and innovation by Stanford University's Design School.
- Attended the March Silicon Valley UIF Meet Up where I received innovation instruction from world leaders like Google on entrepreneurship and innovation.
- Currently working on implementing several solutions involving campus wide mental health. Winner of the Mines Philanthropy Council's Philantrotank to securing funding for a campus creativity space.
- Organizing the first hackathon hosted at the Colorado School of Mines.
- Attended the CSM Innovation & Entrepreneurship summit

**CS@Mines CMAPP Scholar** **2017**

- Departmental Scholarship for involvement on and off campus, including activities such as my involvement in ACM's events at local elementary schools promoting Computer Science.

**AFCOM Scholar** **2017 - Current**

- I was awarded this scholarship for my work with GCG concerning data centers. The award and money were provided by the AFCOM Denver Chapter.

**Mines Linux User Group**

- As part of the usergroup I have gained a large amount of experience with linux and with common applications run on linux systems. This includes implementing Postfix email servers, large scale GPU computation, common command line utilities, etc.

**Slyther Lisp** **2018**

- CSCI400 Final project where I implemented a tail call optimised LISP dialect. I implemented the language with a terminal callable REPL by making it installable via pip3.

**Path Finder (Dynamic Programing Approach to Path Optimization)**

- This program finds optimal paths from one side of a data set to the other using a dynamic programing based approached. This was applied to satellite terrain data to find optimal road routes.

**ACM International Collegiate Programming Contest (ICPC)** **2017**

- Regional programming competition hosted by Mines ACM, focusing on technical problem solving on an intense time crunch against teams from the surrounding states and Canada.

**Prime Finder**

- I created a suite of programs to find all prime numbers between 0 and 4,294,967,295 (The maximum size of an unsigned int). This suite explored the tradeoffs between ram and cpu usage along with a multithreaded implementation.

**Pi Arcade Machine** **2017**

- Made a MAME Arcade machine that plays many classic arcade games. The whole project was powered by a Raspberry Pi.

**Google Games** **2018**

- Google Games is a technical competition that was hosted Google Boulder and similar regional sites. The games have a heavy focus on technical problems with heavy lateral thinking required to solve.

**MinneHack** **2017**

- A MLH Hackathon hosted by University of Minnesota, created a matchmaking service prototype for a local animal shelter on a team of four people.

**EPICS Project (Remote Valve Operation)** **2016**

- This project used an arduino and bluetooth based app to remotely control an automated farm to help alleviate the dietary deficiencies in food deserts. The main goal of this project was to make an easy to use and low cost solution.

**Homemade Quadcopter/Drone** **2014**

- Programmed an Arduino as a flight controller and integrated GPS for autonomous return to home
- Personally designed a drone in my free time from the ground up before the mainstream adoption.
- Creatively improvised construction materials like white board and pool noodles for affordable and innovative construction.

**Mine Rescue Team Member** **2017 - Current**

- Professional training for underground emergencies from a nationally ranked team. Training includes emergency medical response, mapping dangerous areas, safely leading first responders into hazardous areas, and training in fire fighting. (**Treasury Officer 2018 - Current**)