

Liam McFadden

EDUCATION

Virginia Tech

Expected Graduation: December 2022

Major: Computer Science

Minor: Leadership and Service

TECHNICAL SKILLS/QUALIFICATIONS

Programming Languages

Python, C, HTML, CSS, Shell, Java, JavaScript, TypeScript, MATLAB

Skills / Software

Git, GNU/Linux, OOP, Command Line, NodeJS

Relevant Courses

Discrete Mathematics, Combinatorics, Linear Algebra, Calc I/II/III, Software Design, Data Structures and Algorithms, Computer Systems, Computer Organization, Android Development

Secret Security Clearance

AWARDS

Four Year Army ROTC Scholarship

Full tuition scholarship and monthly stipend in support of Army Officer recruitment.

Emerging Leader Scholarship

Awarded to members of the Virginia Tech Corps of Cadets who exhibit academic and leadership excellence.

PROJECTS / COURSE WORK

Self-Driving Car in Rocket League

Used Python, OpenCV, and the Win32API to successfully identify and track the ball in the game Rocket League. Currently, the car will crudely navigate towards the ball.

Custom Shell Implemented in C

Project for Systems class. Featured pipes, I/O redirection, exclusive terminal access, and full job control.

Personal Website

Simple website written in HTML, CSS, and JS to exhibit my resume and personal projects.

Address: 712 E 46th St. Savannah, GA

Email: liamm18@vt.edu **Phone:** 3159490201

Website: <https://liammcfadden.github.io>

GitHub: <https://github.com/LiamMcFadden>

WORK EXPERIENCE

Army Cyber Institute at West Point, NY

Four Week Internship Program

West Point, NY – July 2021 to August 2021

- Ported large MATLAB project to Python3.
- Developed tools to facilitate the porting process.
- Designed and implemented a tool for the creation of configuration (.ini) files using Tkinter.

Vector Rideshare

Internship Program with Ridesharing Startup

Remote – April 2020 to June 2021

- Collaborated with team of other engineers on implementing backend of a game to be integrated into the main app.
- Organized/implemented a dashboard for managing rider Covid status.
- Led a sub-team of three other developers; helped to teach them basic skills such as Git and the command line and held weekly status update meetings

EXTRACURRICULARS

Virginia Tech Corps of Cadets (VTCC)

Four-year military style leadership program.

- Squad Leader – In charge of about 10 other cadets.
- Athletics NCO – Responsible for organizing company athletics events as well as coordinating with other companies.

Army ROTC

Program to develop future Army officers

- Squad Leader – In charge of the development and accountability of 11 other cadets.

VTCC Cyber Club

Cyber Club / CTF team for the VTCC

- Helped teach new members basics of CTFs, Linux, and the command line.

BOLT

Student-led electric motorcycle design team

- Member of the controls sub-team.
- Contributions include writing a calibration script for the IMU (inertial measurement unit) and programming a dashboard for the bike.