Liam McFadden

(Secret Security Clearance)

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EDUCATION

B.S. Computer Science | Leadership & Service Minor | December 2022 | 3.33 GPA
- **Virginia Tech | Blacksburg, Virginia**

Coursework
- Data Structures, Systems, Algorithm Design and Analysis, Human Computer Interaction Design, Computer Organization, Android Development

SKILLS

Languages:
Python, C, Java, JavaScript, C++, HTML/CSS, MATLAB

Tools/Technologies:
Agile Methodologies, Firebase, Flask, Git, Linux (Arch, Ubuntu, Kali), Node.js, React.js, React Native, Vim

EXPERIENCE

**NSA Cyber Exercise | ** *March 2022*
- Three-day NSA hosted CTF style competition between all the Senior Military Colleges (SMC) and Military Academies. Preparation took place over the course of a semester.

Army Cyber Institute, Research Intern **| ** *July 2021 - August 2021 | West Point, NY*
- Worked with a fellow intern under a mentor to port a large MATLAB project to Python3
  - Wrote a small python library for converting MATLAB syntax to python

Vector Rideshare, Product Developer/Subteam Lead **| ** *April 2020 - June 2021 | Remote*
- Led a sub-team of two other developers, helped to teach basic skills such as Git and the command line, and held weekly status update meetings.
- Collaborated with a team of other engineers on implementing the backend of a game to be integrated into the main app using TypeScript and Express.

PROJECTS – *(Longer descriptions at https://liammcfadden.github.io)*

Virginia Bar Association Wellness   (React Native, Agile, Firebase)   *github.com/LiamMcFadden/VBAWellnessApp*
- Fitness Competition app for the Virginia Bar Association.

Custom Web Server   (C, http, AWS, Docker)
- Web server that can serve files, stream MP4 video, and provide simple token-based authentication API.

Self Driving Car in Rocket League   (Python, OpenCV, Win32API)   *github.com/LiamMcFadden/RL-SelfDrivingCar*
- Used Python, OpenCV, and the Win32API to successfully identify and track the ball in the game Rocket League.

CLUBS / ORGANIZATIONS

Virginia Tech Corps of Cadets / Army ROTC
- Military Style Leadership Program and Army Officer Preparation. Served in multiple positions of leadership:
  - Platoon Leader - in charge of the accountability/training of 50 other cadets.
  - Squad Leader - in charge of the accountability/development of 10 other cadets.
  - Athletics NCO - Responsible for organizing company athletics events.

VTCC / VT Cyber Club
- Competed in several CTFs and helped to teach newer members cybersecurity basics.

BOLT
- Student-led electric motorcycle design team – Member of the controls sub-team.