

FOSTER MCLANE

CYBER SECURITY ANALYST

ABOUT

I am a computer enthusiast and enjoy almost everything to do with computers, from low-level logic circuits to high-level programming. I am especially interested in embedded programming, operation systems, program security, network security, and network protocols. In addition to my computer enthusiasm, I have a large interest in high school level education in computational thinking.

WORK EXPERIENCE

Clemson University

📍 <https://ccit.clemson.edu/about/departments/security-operations-center/>
December 2017 – Present

Cyber Security Analyst

Under the Office of Information Security and Privacy, I am a full-time analyst of Clemson's computer network for identifying potential cyber security threats, mitigating current threats, and preventing current threats from happening in the future.

FoosterNET, LLC

📍 <https://fooster.io/>
November 2013 – Present

Owner

FoosterNET, LLC is a company I use for freelance work in cyber security consulting, system administration, and computer programming. It additionally sanctions all other services I provide for money including server hosting.

Clemson University

📍 <https://ccit.clemson.edu/about/departments/security-operations-center/>
January 2017 – December 2017

Cyber Security Intern

Under the Office of Information Security and Privacy, I was a part-time analyst of Clemson's computer network for identifying potential cyber security threats, mitigating current threats, and preventing current threats from happening in the future.

Clemson University

January 2017 – May 2017

Virtual Reality Intern

Under Dr. Stephen Moysey, I worked to bring virtual reality to the university in a variety of ways including setting up VR systems, coordinating generally available VR equipment for students and faculty, and creating demos for VR.

Clemson University

January 2016 – December 2016

Virtual Reality Game Development Intern

Under Dr. Stephen Moysey, I researched teaching applications of geological sciences field techniques in a virtual reality video game. The game, titled Virtual Reality Field Experiences, features a trip to the Grand Canyon where the gamer learns rock identification techniques and builds the stratigraphic column of the canyon.

Clemson University

📍 <http://people.clemson.edu/~yue6/>
January 2015 – May 2016

Undergraduate Student Researcher in UAV and Manufacturing Robotics

Under Dr. Yue Wang, I researched quadrotor control algorithms and trust aware manufacturing in the Interdisciplinary Intelligence Research Lab, or I²R Lab.

CONTACT



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<https://fooster.io/>



GitHub
fkmclane

EDUCATION

2014
2018

Clemson University

🎓 Bachelor of Science

Computer Science, with an interest in Education, Math, and Language

Courses

- ◀ Algorithms
- ◀ Software Engineering
- ◀ Operating Systems
- ◀ Network Programming
- ◀ Principles of Programming Languages
- ◀ Computer Security Principles
- ◀ Special Topics in Embedded Computing
- ◀ Foundations of Computer Science
- ◀ Distributed and Cluster Computing
- ◀ 2D Game Engine Construction
- ◀ Virtual Reality Systems

2012
2014

SC Governor's School for Science and Mathematics

🎓 High School

Computer Science

Courses

- ◀ Advanced Computer Science
- ◀ Digital Logic
- ◀ Modern Physics

SKILLS

Programming Master

C C++ C# Python JavaScript Java
PHP

AWARDS

April
2014

SC Junior Academy of Science

🏆 Outstanding Research and Presentation

Awards: 1st Oral Presentation - Computer Science, 1st Written Presentation - Computer Science. The awards included an invitation to the American Junior Academy of Science.

VOLUNTEER

FTC - Star Bots 6170

🌐 http://ehs.pickens.k12.sc.us/fine_arts_organizations/student_life/robotics_club
September 2016 – Present

Mentor

After having three years of experience of participating in the FIRST Tech Challenge robotics competition, or FTC, including one year of which I was team captain and made it to the super regional competition, I mentor the nearby Easley team, Starbots.

CU Cyber

🌐 <https://cucyber.net/>
August 2015 – Present

Level 5 Tech Support

CU Cyber is the cyber security club at Clemson University. We participate in cyber defense competitions and hold weekly seminars involving cyber security. I was the secretary and am now Level 5 Tech Support of CU Cyber where I maintain club organization, club preparation, and various technological aspects. I additionally help create many of the weekly seminars given.

SC Robotics Education Foundation

🌐 <http://scref.org/>
January 2015 – Present

Field Technical Advisor and Field Inspector

After three years of experience of participating in the FIRST Tech Challenge robotics competition, I volunteer to run the scrimmage hosted by the SC GSSM and am the main technical coordinator for the state competition.

Gentoo Overlay - fkmclane

🌐 <https://github.com/fkmclane/overlay>
May 2013 – Present

Owner

I have a recognized overlay for my distribution of choice for my workstation, Gentoo. I maintain over 150 packages in this overlay that range from little X11 tools to the Unity Editor, from the game engine, for Linux to all of the Linux software associated with Plex. Additionally I have a few of my own tools that I wrote such as one to manage tty sessions intelligently without having a display manager.

Clemson ACM

🌐 <https://www.cs.clemson.edu/acm/>
September 2014 – January 2017

Webmaster

ACM, the Association for Computing Machinery, is the world's largest society for scientific and educational computing. I was the webmaster of Clemson University's local chapter where I created and maintained their website.

Unix Administration Master

Website Deployment Virtual Machines Networking
General Services RedHat Enterprise Linux Ubuntu
Arch Linux Gentoo Linux Debian FreeBSD

Network Security Proficient

Cisco Palo Alto pfsense Endian UniFi

Virtualization Proficient

libvirt oVirt Stateless Hypervisors PXE

Software Development Proficient

REST Robot Operating System GTK+

Game Development Learning

Unity 3D Pyglet

Web Development Proficient

HTML5 CSS3 JavaScript Semantic UI PHP
Python Django

Computer Graphics Learning

Blender GIMP Inkscape

Text Editing Master

Neovim Vim Vi

Documentation Proficient

LaTeX Markdown VimWiki

PUBLICATIONS

Trust-Based Mixed-Initiative Teleoperation of Mobile Robots

📄 American Control Conference

06 July 2016

🌐 <http://ieeexplore.ieee.org/abstract/document/7526640/>

Trust-Based Mixed-Initiative Teleoperation of Mobile Robots is a scheme for the bilateral teleoperation of mobile robotic systems using a quadrotor, ground robot, and a haptic feedback device. In the scheme, control is shared between human and autonomous controllers with the human controller having force feedback cues. Two-way trust models are calculated to dynamically scale each control input for optimal performance and reduced physical workload of the human operator. The results indicate that the proposed scheme improves task performance by 31% and reduces the operator workload by 23.9%.

Vision-Based Control of a Quadrotor

📄 SC GSSM

01 February 2014

Vision-Based Control of a Quadrotor uses a quadrotor and its two mounted cameras to have the quadrotor perform basic analysis of its environment and make decisions based on it. It includes basic applications for following a marked path or object and an extensible interface for writing more complex autonomous logic.