JAMES HARPER CLINE

1511 Wild Azalea Ln. Athens, GA 30606 ● (706)-799-6061 ● harper.cline@gatech.edu

United States Citizen ● Clearance Level: Secret

EDUCATION

Bachelor of Science in Computer Engineering   August 2017 - Present
Georgia Institute of Technology, Atlanta, GA. GPA: 3.38

SKILLS

Programming	Proficient: C#, C++, C, Python
	Beginner: Java, MATLAB, MIPS Assembly, SystemVerilog, LaTeX
Platforms	Ubuntu Server, Ubuntu Desktop, Red Hat Enterprise, Jenkins, Kubernetes
Hardware	ARM Mbed, Arduino Uno, TERMA ALQ-213, Altera DE2 FPGA
Software	Visual Studio (Windows Presentation Foundation), Atlassian Suite, Autodesk EAGLE, JetBrains Software

EXPERIENCE

Software Engineering Co-Op at GTRI Atlanta, GA   May 2020 - December 2020
- Refactored the previous Event Aggregator Windows Presentation Foundation (WPF) component, improving maintainability and portability
- Developed an Event Aggregator test suite to use with Jenkins, increasing code coverage from under 70% to 100%
- Developed an Error Provider WPF component using a model-view-viewmodel framework to transmit error messages and display them to the user

Systems Engineering Co-Op at GTRI Atlanta, GA   May 2019 - May 2020
- Created a LaTeX template for ALQ-213 test procedures, increasing productivity by enabling test procedures to be version controlled
- Selected and implemented an acronym library for the test procedure template, allowing test procedure authors to clearly define and tag acronyms
- Developed a program to locate and report acronym errors in test procedure documents, eliminating acronym errors

Research Intern at The University of Georgia Athens, GA   May 2016 - August 2016
- Created augmented reality experiences for user avatar characters to participate in using Unity 3D, demonstrating the future utility of the virtual STEM buddy avatar system
- Traveled to the Children's Museum of Atlanta to demonstrate the virtual STEM buddy project, contributing to the team effort to secure funding

LEADERSHIP

Interfraternity Council VP of Coummunications   November 2020 - Present
- Emphasized committee recruitment for Interfraternity Council technology and public relations sub-committees, increasing committee membership by 900%

Delta Chi Fraternity Recruitment Chairman   January 2020 - August 2020
- Adapted recruitment strategy to be compatible with the challenges posed by Covid-19 by moving recruitment online using teleconferencing software
- Executed virtual recruitment successfully, increasing the number of new members by 106% from the previous year

PROJECTS

CMoy Headphone Amplifier   July 2021 - August 2021
- Selected components and designed a PCB for a portable headphone amplifier based on Chu Moy's research

Robot Musician   May 2021 - August 2021
- Designed software for a robot musician that incorperated elements of DSP and embmedded system design
- GitHub: `https://github.com/jcline8/3872-project-software`

LED Audio Visualizer   April 2021 - May 2021
- Documented and designed software for an LED audio visualizer using the ARM Mbed.
- GitHub: `https://github.com/jcline8/frequency-vis`