

# JAMES HARPER CLINE

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United States Citizen • Clearance Level: Secret

## EDUCATION

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### Bachelor of Science in Computer Engineering

August 2017 - Present

Georgia Institute of Technology, Atlanta, GA. GPA: 3.38

## SKILLS

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**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

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### 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

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### Interfraternity Council VP of Communications

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

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### 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 incorporated elements of DSP and embedded 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>