

Charles Liu

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SUMMARY

A software engineer dedicated to creating positive value for people via games/tools. Proven track record of user/player empathy at the small and large scale. Looking for opportunities with a collaborative culture where I can contribute to decision-making and develop robust, innovative, and player facing software.

EDUCATION

GEORGIA TECH
BS IN COMPUTER SCIENCE
May 2024 | Atlanta, GA
Cum. GPA: 3.95 / 4.0
Major GPA: 4.0 / 4.0

LINKS

Github:// [charlieliu17](#)
LinkedIn:// [charlessliu](#)

COURSEWORK

UNDERGRADUATE

Computer Networking
User Interface Design
Data Structures and Algorithms
Objects and Design (OOD)
Object-Oriented Programming (OOP)

SKILLS

LANGUAGES

Over 5000 lines:

Java • Python • C#

• JavaScript • React

Over 1000 lines:

C++ • C • CSS • Assembly

Familiar

CI/CD • Flask

TECHNOLOGIES

Riot APIs • SDLC • Figma • Git

• Unity • Android Studio • OpenCV

• Kubernetes

EXPERIENCE

NCR | SOFTWARE ENGINEERING INTERN

May 2022 - Aug 2022 | Atlanta, GA

- Collaborated on enterprise-level website to expose real-time back-end items data (1 billion+ records) to 30,000+ organizations on a global scale utilizing **Google Cloud Platform, React**, and **ElasticSearch**'s distributed system
- Executed UI unit testing, functional testing, integration testing with **Cypress**
- Owned the software design of UI, mocking up 90% of site with **Figma**
- Coordinated with lead software engineers to outline new **REST APIs** for website's core messaging service

3DMD | SOFTWARE ENGINEERING INTERN

May 2021 - Apr 2022 | Atlanta, GA

- Designed and implemented full-stack desktop application to automate 3D scans with an 8x improvement in speed, throughput, and efficiency over manual process with 100% accuracy
- Built and rebuilt above application in different frameworks to adapt to company's evolving needs (**C#/Python** and **Intel RealSense/OpenCV**)
- Improved 3D capturing app's performance by 38% via cost analysis of **Java** JDKs

PROJECTS

TECHNIQ | FOUNDER AND LEAD SOFTWARE ENGINEER

Oct 2021 - Present

- Conceptualized sports analysis tool with new video synchronization algorithm with 95%+ accuracy utilizing **OpenCV**
- Led team of 4 to create proof of concept at **HackGT8**
- Continuing to meet with designer to build out user experience before launch

DOG DAYS | vgDEV TEAM LEAD

Jan 2021 - June 2021

- Created 3D social simulation game, spearheaded its development, and published for the Georgia Tech population of 16,000
- Managed a team of 10+ people on a 1-week sprint Agile framework to create unique music, art, and gaming elements
- Received consistent positive responses from players throughout development and launch, praising aesthetics and the feel-good mood

WRITENOISE | PROJECT MANAGER AND SOFTWARE ENGINEER

Oct 2020

- Formulated idea behind WriteNoise, a lossless sound to image converter with applications in artistic musical representation and steganography
- Oversaw allocation of limited resources and promoted teamwork given 36 hours and 4 team members
- Communicated effectively with **HackGT7** judges to place top 2

AWARDS

2021	2 nd /2500	HackGT7 2nd Place Overall - WriteNoise
2020	top 10/700	USFS 2020 Scholastic Honors Team Member