# Charles Liu

charlessliu.com
charlieliu2222@gmail.com | 678.983.3836

## SUMMARY

A software engineer dedicated to creating customer value. Proven track record of user 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 user facing software.

## EDUCATION

**GEORGIA TECH**
BS, MS in Computer Science
Dec 2023, Dec 2024 | Atlanta, GA
GPA: 4.0

## LINKS

Personal:// **charlieliu17**
Github:// **charlieliu17**
LinkedIn:// **charlessliu**

## COURSEWORK

**UNDERGRADUATE**
Data Structures and Algorithms
Objects and Design (OOD)
Object-Oriented Programming (OOP)
Computer Networking
User Interface Design
Databases
**GRADUATE**
Machine Learning
Computer Vision

## SKILLS

**LANGUAGES**
Over 5000 lines:
Java • Python • C#
• JavaScript
Over 1000 lines:
C++ • C • CSS • React
Familiar
Flask • Assembly • SQL
**TECHNOLOGIES**
CI/CD • Rest APIs • SDLC • Figma • Git
• Unity •Android Studio • OpenCV
• AWS

## EXPERIENCE

**AMAZON** | Software Development Engineer Intern
Summer 2023, 2024 | Arlington, VA

- Spearheaded the migration of enterprise system to **AWS**, transforming a foundational application with 100,000+ accounts monthly and processing 10 figures of revenue yearly
- Developing critical **Java** API that unblocks bottleneck for product expansion to new countries by eliminating discrepancies and redundancies

**NCR** | Software Engineering Intern
May 2022 - Aug 2022 | Atlanta, GA

- Collaborated on enterprise-level website to expose real-time backend 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 and bringing to market sports analysis app with novel video synchronization algorithm with 95%+ accuracy utilizing **OpenCV**
- Led team of 4 to create proof of concept at **HackGT8**

**DOG DAYS** | vgDev Team Lead
Jan 2021 – June 2021

- Created 3D social simulation game in **Unity** 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

## AWARDS

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