Vivian Gu

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Education

Georgia Institute of Technology

BS in Computer Science + Media, Minor in Mathematics

o GPA: 3.91/4.00

o Coursework: Object-Oriented Programming, Data Structures and Algorithms, Objects and Design

Experience

Software Development Engineer Intern

Santa Monica, CA May 2025 - August 2025

Expected: May 2027

Amazon (Private Brands Intelligence)

Designed and implemented an LLM-powered analysis tool to assist product managers in identifying anomalies in forecast files, reducing manual investigation time by 80%.

- Developed a scalable serverless architecture using AWS S3, Lambda, and Bedrock Agents with dynamic action group integration.
- Iterated on technical design document, collaborating with team to evaluate architectural options and select an approach aligned with the problem requirements.

Developer and Project Lead

Atlanta, GA

VGDev Club

Aug 2023 - Present

- Leveraged C# and Rust scripts to develop and refine core game mechanics, enhancing responsiveness and player experience.
- Directed a team of 30 students in the design and development of a complete game, managing 4 subteams.

Undergraduate Researcher

Atlanta, GA

Robotic Musicianship Lab

Dec 2024 - Present

- Developed gaze-based interaction systems for a VR robot using Unity and Meta XR packages.
- Integrated and optimized robot's responsive features to simulate interaction with humans.

Projects

Restaurant Reservation System — Java, Bootstrap

- Implemented a full-stack Java web application in a Scrum environment, allowing users to create profiles, make reservations, and gain loyalty points.
- Executed terminal and front-end parity via layered architecture and API requests, effectively storing and updating back-end data such as restaurant availability and loyalty points.

Cellary Kitchen Management — Python, Flask, HTML/CSS, Bootstrap

- Led a Flask project to integrate a computer vision model into a digital kitchen inventory management system, resulting in an automated process for tracking ingredients which encouraged reduced food waste.
- Allows for quick scanning of grocery pictures and adjusting of inventory quantities, implemented through a REST API for handling requests between the front-end and back-end.

Personal Portfolio Website — HTML/CSS, Javascript

- Developed a responsive webpage using HTML and CSS, enhancing information display across devices.
- Leveraged JavaScript event handlers and queries to implement responsive sliding galleries and pop-ups, improving interactivity and engagement on the site.

Technical Skills

Languages: Java, Python, HTML, CSS, C, C#, GLSL

Frameworks and Tools: Git, AWS (S3, Lambda, Bedrock, IAM), Bootstrap, Flask, Unity