

Harrison Zhu

Atlanta, GA

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Education

Georgia Institute of Technology

August 2019 - May 2023

CANDIDATE: B.S. IN COMPUTER SCIENCE

Atlanta, GA

- Relevant Coursework: Design of Algorithms, Data Structures and Algorithms, Database Systems, Machine Learning, Objects and Design, Object-Oriented Programming
- **GPA: 4.0**; Faculty Honors for 5 semesters.

Skills

Programming Languages

Java (proficient), Python (proficient), JavaScript (intermediate), CSS (intermediate), HTML (intermediate), C# (intermediate), MySQL (intermediate)

Technologies

Git (proficient), L^AT_EX (proficient), fastai/PyTorch (intermediate), Jupyter Notebooks (intermediate), React (basic), Azure (basic)

Experience

Microsoft

May - August 2021

SOFTWARE ENGINEERING INTERN

Atlanta, GA

- Implemented a compute and networking diagnostics solution for new servers being integrated into the Azure Dedicated ecosystem.
- Designed and implemented a system to track and log information during cloud resource allocation using Azure Service Bus, Azure Functions, and Kusto Databases.
- Aggregated and coordinated data sources from multiple teams across Azure Dedicated into a unified metrics UI.
- Established tooling for engineers that significantly reduced the time to mitigate issues and supplemented that tooling with documentation that was praised by principal engineers and architects.

Georgia Institute of Technology

May 2020 - Present

UNDERGRADUATE TEACHING ASSISTANT: CS 1332 (DATA STRUCTURES AND ALGORITHMS)

Atlanta, GA

- Collaborated with a large team of 30 co-teaching assistants to ensure success, grade assignments, and create recitation guides for the instruction of 600 students.
- Coordinated bi-weekly office hours and answered questions concerning course content, projects, and exams.
- Held weekly recitation sessions and managed student questions during lectures.

Projects

Data Structures and Algorithms Visualization Tool

September 2020

- Fixed algorithm definitions in the open-source CS 1332 visualization tool used by 600+ students to visualize data structures and algorithms.
- Programmed visualization using JavaScript, React, and the University of San Francisco animation API.
- Implemented feature requests that increased the tool's effectiveness in helping students visualize data structures and algorithms as well as in helping instructors teach concepts.

Squiggle

October 2020

- Implemented a front-end interface for a restaurant load-balancing web application during HackGT7.
- Employed React, JavaScript, and CSS to create and style reusable React components for use in constructing the interface.

String Instrument Image Classification

July 2020

- Designed an image recognition machine learning model that distinguishes between instrument images (of violins and cellos) using the fastai library on top of PyTorch.
- Adapted, tuned, and exported the ResNet-34 convolutional neural network for use in transfer learning between the ImageNet dataset and the custom instrument dataset.
- Deployed the model as a web app using Render and by adapting existing HTML, CSS, and JavaScript code.

Honors & Awards

2020 **CS2340 Top Scorer**, Scored the highest out of 104 students in **CS2340** (Objects and Design)

2019 **Finalist**, National Merit Scholar - Southern Company Scholarship