Harrison Zhu

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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.

Work Experience

Microsoft *May 2021 - August 2021*
Software Engineering Intern *Atlanta, GA*
- Implemented a compute and networking diagnostics tool for new servers in the Azure Dedicated ecosystem.
- Designed a system to track and log information during cloud resource allocation using Azure Services.
- Aggregated and coordinated data sources from multiple teams across Azure Dedicated into a unified metrics UI.
- Contributed maintainable code that consistently passed unit tests and code reviews from senior engineers.
- 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 team of 30 co-TAs to grade assignments and create recitation guides for over 600 students.
- Coordinated bi-weekly office hours and answered questions concerning course content, homeworks, and exams.
- Held weekly recitation sessions and managed student questions during lectures.

Projects

Data Structures and Algorithms Visualization Tool *September 2020*
- Fixed algorithm implementations in the open-source CS 1332 visualization tool used by 600+ students.
- Created visualizations using JavaScript, React, and the USF 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 React components for use in the interface.

String Instrument Image Classification *July 2020*
- Designed an image recognition machine learning model that distinguishes between instrument images with `fastai`.
- Tuned a convolutional neural network for use in transfer learning between the ImageNet and instrument datasets.
- Deployed the model as a web app using Render, HTML, CSS, and JavaScript.

Skills

Programming Languages Java, Python, JavaScript(Node.js), CSS, HTML, C#, SQL/MySQL
Technologies Git, LaTeX, Jupyter Notebooks, React, Numpy, PyTorch, scikit

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