

# Harrison Zhu

Atlanta, GA

☎ (317) 919-9018 | ✉ hzhu359@gatech.edu | 🏠 hzhu359.github.io | 📱 hzhu359 | 🌐 hzhu359

## Education

### Georgia Institute of Technology

Atlanta, GA

CANDIDATE: B.S. IN COMPUTER SCIENCE

Aug. 2019 - (Expected) May 2023

- Relevant Coursework: Machine Learning (in progress), Computer Organization & Programming (in progress), Intro to AI, Objects and Design, Data Structures and Algorithms, Intro to Object-Oriented Programming, Discrete Math, Linear Algebra
- **GPA: 4.0**

## Skills

<b>Programming Languages</b>	Java (proficient), Python (proficient), CSS (intermediate), HTML (intermediate), JavaScript (basic)
<b>Technologies</b>	Git (intermediate), L <sup>A</sup> T <sub>E</sub> X (intermediate), fastai/PyTorch (intermediate), GIMP (intermediate), Final Cut Pro (intermediate)

## Experience

### Ultimate Software

Atlanta, GA

SOFTWARE ENGINEERING INTERN

May 2020 - Aug. 2020

- **Internship offer accepted, but deferred due to the COVID-19 pandemic.**

### Georgia Institute of Technology

Atlanta, GA

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

Jan. 2020 - Present

- Assisted in the grading of course projects and exams.

UNDERGRADUATE TEACHING ASSISTANT: PHYS 2211 (INTRO PHYSICS I)

Jan. 2020 - Apr. 2020

- Led and organized instruction during lab sections, managed equipment, and graded assessments.

## Projects

### String Instrument Image Classification

Jul. 2020

- Used the fastai library on top of PyTorch to build and refine a machine learning model that distinguished between instruments (specifically between violins and cellos).
- Adapted, tuned, and exported the ResNet-34 convolutional neural network for use in transfer learning between the ImageNet dataset and the custom instrument dataset.
- Modified template HTML, CSS, and JavaScript code in order to deploy the image classification model as a web app using Render.

### Cover Type Prediction

Oct. 2019

- Used the scikit-learn, pandas, and numpy libraries to predict and analyze the type of tree in a forest given a list of over 50 attributes.
- Visualized and discovered patterns and clusters within the dataset using the Seaborn library.
- Adapted a Random Forest model in order to classify cover types in forests.

### Georgia Tech Ping-Pong Website

Oct. 2019

- Contributed to a website that tracked when ping-pong tables were in use around the Georgia Tech campus.
- Formatted the website's main table using the HTML link element to access the W3.CSS framework.
- Used the W3.CSS framework to dynamically adjust table size, add table shading, format assets, and format buttons.
- Created JavaScript functions to change color of table elements using onclick events and the id property.

## Honors & Awards

- |      |   |             |
|------|---|-------------|
| 2020 | <b>CS2340 Top Scorer</b> , Scored the highest out of 104 students in <b>CS2340</b> (Objects and Design) | Atlanta, GA |
| 2019 | <b>Finalist</b> , National Merit Scholar - Southern Company Scholarship                                 | Atlanta, GA |
| 2018 | <b>Finalist</b> , Georgia Governor's Honors Program   | Rome, GA    |