Richard Zhang

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EDUCATION

Georgia Institute of Technology 4.0/4.0 GPA   Atlanta, GA
Candidate for B.S in Computer Science   Expected Graduation: *December 2024*
Coursework: Object-Oriented Programming, Data Structures, Artificial Intelligence, Computer Organization, Perception and Robotics, Discrete Math for CS

SKILLS

Programming Languages: Python, Javascript, Java, SQL, HTML/CSS, C, C#, Elixir, Matlab
Frameworks & Tools: React, Pytorch, Node, Express.js, MongoDB, Django, Scikit-learn, Git, Phoenix, Jest
                            Jupyter Notebook, Anaconda
Software: IntelliJ, Visual Studio, VSCode
Communication: English (native), Chinese (working proficiency)
Certifications: Machine Learning (Coursera)

EXPERIENCE

Intelligent Tutoring Systems VIP - Data Engineer   *January 2022 - May 2022*
- Developed data pipelines from a MySQL database to Python scripts and Jupyter notebooks for analysis
- Implemented caching of question activity data across all student tables in a MySQL database
- Built a recommendation system based on collaborative filtering for predicting difficulty ratings on unrated questions

PROJECTS

Chinese Number Classifier   *April 2021*
A Google Colab notebook that builds and trains a convolutional neural network and visualizes its filters and feature maps
- Trained a convolutional neural network to classify 15 different Chinese characters with the Pytorch library
- Visualized the CNN's filter weights and their created feature maps on input data through Matplotlib

Learn Bundle   *November 2021 - January 2021*
A platform to read and post online resources for personalized learning for any technical skills
- Applied Bootstrap and React for responsive and easy-to-understand user interfaces
- Developed a Node & Express REST API for querying a MongoDB database of user submissions and authentication

Data and File Converter   *September 2021 - December 2021*
A web application for converting one form of data to another
- Worked in a group of four in designing responsive user interfaces and software flow with Bootstrap and React
- Managed the development of routes for data conversions in a Node/Express server

Rewardr (HackGT)   *October 2021*
A software-as-a-service for small businesses to employ their own loyalty programs
- Collaborated with three others in planning Rewardr's tech stack and software architecture diagrams
- Employed Bootstrap and React to create responsive web pages for customer and business accounts

INVOLVEMENTS & LEADERSHIP

Data Structures Prep Course   *March 2020 - April 2021*
Head Teacher and Founder
- Instructed 15 members on the complexity analyses of algorithms and basic data structures
- Recorded and edited lecture videos on algorithmic complexity, LinkedLists, and HashMaps
- Trained 10 members on recursion and dynamic programming through online coding demonstrations

Tompkins Falcon Band   *May 2020 - April 2021*
Drum Major
- Oversaw the leadership of 30 section leaders, two woodwind captains, and two brass captains
- Managed the instruction of 200+ band students on marching technique, choreography, and music
- Collaborated with three band directors in establishing effective rehearsal procedure