Thaddeus Dai

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EDUCATION

The University of Texas at Austin, Austin, TX — Spring 2022
Bachelor of Science in Mechanical Engineering Honors
Minors in Computer Science and Business
GPA: 3.84/4.00

Courses: Databases, Web Development, Parallel Computing, Technical/Scientific Computing, Software Design, Software Engineering
Skills: Python, JavaScript, SQL, C/C++, Java, PHP, HTML, CSS, Docker, Git, Agile Methodology, MATLAB, SolidWorks, Microsoft Office

EXPERIENCE

Amazon | *Software Developer Engineering Intern* — Seattle, WA | Summer 2021
- Developed APIs with Java to increase efficiency in warehouses by controlling and optimizing internal workflows
- Utilized AWS tools such as CloudFormation, SNS/SQS, and DynamoDB to manage data and infrastructure
- Wrote unit tests and tested APIs in gamma to ensure all proposed requirements are satisfied prior to deployment
- Collaborated with junior and senior engineers to write a design document that addresses the use cases, customer pain points, and scalability of a product

Hewlett Packard Enterprise | *Quality Lifecycle Engineering Intern* — Houston, TX | Summer 2020
- Resolved 500+ technical cases from various stakeholders and lowered customer pain by 2% by detecting issues early in a product's lifecycle
- Lowered intervention rate by 2.2% and reduced warranty costs for 2 major products
- Used SQL to conduct data analysis to present weekly updates to upper management on multiple products
- Coordinated action items across multiple teams and performed fault analysis and closed loop corrective action on failure trends

PROJECTS

Covid-19 Blogs
- Implemented artificial intelligence and deep learning techniques to develop a convolutional neural network (CNN) with an accuracy of over 95% in detecting people wearing facemasks in images
- Used test driven development to construct a back-end REST API that incorporates the CNN
- Built a dynamic front-end to create a full stack web application that allows users to read and write blogs relating to coronavirus
- Tools used: Django, Unit test, ReactJS, Redux, Webpack, Bootstrap, Keras, Numpy, Tensorflow, Sklearn, Pandas, PostgreSQL

Titanic Predictor
- Developed a machine learning model using Kaggle's Titanic data set that predicts if a person would have survived the sinking of the Titanic with approximately 80% accuracy
- Constructed a back-end REST API that is integrated with the machine learning model
- Designed a user-friendly front-end that takes in a user's input, posts them to the REST API, and returns the results
- Tools used: Django, ReactJS, Materialize, Heroku, Keras, Tensorflow, Sklearn, Numpy, Pandas, MySQL

ACTIVITIES & LEADERSHIP

Longhorn Entrepreneurship Agency | *Executive Board ('20-Present)* — Fall 2019 – Present
- Directed the logistics team in writing process documents to remove operational ambiguity and improve efficiency
- Delegated tasks to members and coordinated with other organizations to manage and plan entrepreneurship events

Texas Aerial Robotics | *Hardware Team* — Spring 2019 – Present
- Soldered electrical components and developed 3D designs using SolidWorks to build an autonomous drone
- Competed in the International Aerial Robotics Competition

ADDITIONAL INFORMATION

Language: English (Native Language), Mandarin (Fluent in speech)
Interest: Karaoke, Weightlifting, Chess, Football, Basketball, Soccer, Juggling
Work Eligibility: Eligible to work in the U.S. with no restrictions (US Citizen)