

# 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: 3.89/4.00

**Relevant Coursework:** Web Programming, Software Engineering, Software Design, Differential Equations, Engineering Statistics

**Skills:** Python, JavaScript, C/C++, SQL, PHP, HTML, CSS, Docker, Git, Agile Methodology, MATLAB, SolidWorks, Microsoft Office

## EXPERIENCE

**Hewlett Packard Enterprise** | *Quality Lifecycle Engineering Intern*

Houston, TX | Summer 2020 – Present

- Lowered intervention rate by 2.2% and reduced warranty costs for 2 major products by coordinating action items across multiple teams and performing fault analysis and closed loop corrective action on failure trends
- Resolved over 500 technical cases from various stakeholders and lowered customer pain by 2% by working with a group of engineers and a program manager to detect issues early in a product's lifecycle
- Wrote SQL script to query and gather large data sets from the company's database and conducted data analysis to present weekly updates to upper management

## PROJECTS

### Covid-19 Blogs

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

### Titanic Predictor

- Constructed a machine learning model using Kaggle's Titanic data set that can predict if a person would have survived the sinking of the Titanic with approximately 80% accuracy
- Built a back-end REST API that is integrated with the machine learning model and 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-'21)*

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 to compete in the International Aerial Robotics Competition

**Lambda Chi Alpha Fraternity** | *Active Member*

Fall 2018 – Present

- Volunteered at Central Food Bank multiple times a semester to achieve the fraternity's philanthropic goal of ending hunger

## AWARDS

*Cockrell School of Engineering Honors Scholarship (4 Semesters)*

Fall 2018 – Spring 2020

*University Honors (4 Semesters)*

Fall 2018 – Spring 2020

## ADDITIONAL INFORMATION

**Languages:** 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)