

ZEYANG(ZACK) LAI

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EDUCATION

UC San Diego Extension Coding Boot Camp

Expected Dec 2021

Rutgers University-Newark

Expected Dec 2021

Master of Information Technology and Analytics

Pennsylvania State University

Aug 2016 – May 2020

Bachelor of Science in Electrical Engineering

SKILLS

- **Programming:** Python, Java, JavaScript, C++, R, Typescript, HTML, CSS, MySQL, MATLAB
- **Related Courses:** Data Structure & Algorithms, Computer Vision, Reinforcement Learning, Discrete Optimization
- **Skills:** Web Scraping, Git, Shell, Bash, Postman, Firebase
- **Framework related:** Angular, Node.js, React, Django

PROFESSIONAL EXPERIENCE

Midea Group

Foshan, China

Business Analyst Intern(remote)

May 2019 – Aug 2019

- Wrote and ran **SQL** queries based on criteria given by supervisors, performed data processing to retrieve and clean over **1 million** rows of data from the cloud server.
- Lead a team of five to conducted descriptive analysis to understand data distribution pattern using **R**.
- Produced data quality report by visualizing distribution and other key statistical measures using **Tableau**.
- Facilitated the classification modeling process by validating the models using multiple test sets, and generated validation reports that included suggestions on parameter fine-tuning.

Dr. Technology co.

Guangzhou, China

Data Analysis & Engineering Intern

Jun 2018 – Aug 2018

- Built up salesmen performance model and found visiting abnormal value by using **KNN** which achieved **91%** accuracy
- Built up a **binary classification model** with **Decision Tree** to predict the probability of purchasing in next month, which achieved **93%** accuracy and improved the sales revenue by **22%**.
- Produced monthly customers analysis reports and dashboards using **Tableau** to help company to compare performance with previous months and developed new business strategies.

PROJECTS

Find A City (HTML & CSS & JavaScript)

Sep 2021 – Oct 2021

- A single page web app designed to provide a search by zip code form which will return the average commute time and the air quality index for that county.
- Utilized the server-side API from airnow.gov and the Census Bureau to pull the data using **JavaScript**
- Made the web page to be mobile responsive using Materialize.CSS

New York Taxi Analysis

Jun 2021 – Aug 2021

- Analyzed and visualized the incident and the taxi duration data of New York by **Python (Pandas, NumPy, Matplotlib)** and **Tableau**.
- Used **A Star Algorithm** to find the relation between decreasing the collision probabilities and increasing the length of origin-destination pairs.

Cherry Blossom Ten Mile Run (React Native & Python)

Feb 2021 – Apr 2021

- Used **Python Beautiful Soup** crawled all the data from <https://www.hedgerad.com/race> and save them into **Firebase**.
- Developed an **IOS** app by **React Native** and Firebase database to show all the Record.

Forward and Inverse Camera Projection (MATLAB)

Oct 2019 – Dec 2019

- Project 3D coordinates to 2D coordinates and plot them on the Frame images using **MATLAB**
- Extract frame to obtain x,y,z coordinates as the world coordinates and use the values from cameras to triangulate the viewing rays of the camera views to recover original 3D coordinates.
- Designed and implemented the **algorithm** to compute and track the epipolar lines in the frame image.