JINGYI ZHANG (ALISIA ZHANG)
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EDUCATION

BOSTON UNIVERSITY Boston MA
M.S. in Electrical and Computer Engineering , GPA:3.60/4.00 Sep 2023-Expected June2025
PURDUE UNIVERSITY West Lafayette IN
B.S. in Electrical Engineering (Major), Economics (Minor) , GPA: 3.12 /4.00 Aug 2020 - May 2023
FENG CHIA UNIVERSITY TaiChung , Taiwan
B.S. in Electrical and Computer Engineering , GPA: 3.60/4.00 Aug 2018-June 2020
Relevant Coursework
Product Design in Engineering, Data Structure, Probabilistic Methods, Digital System Design, Data Science, Software programming, Digital Signal Processing, micro economics, etc

WORKING EXPERIENCE

Shanghai Ming Huadian Li Technology Co.,Ltd.
data analysis project assistant(internship) Shanghai, China, June 2023-Aug 2023

- Designed and implemented a predictive model for photovoltaic panel power usage based on summer weather and irradiance data attributes, including temperature, pressure, and horizontal / vertical / scatter irradiance.
- Performed data cleaning using **python** on summer weather and irradiance data. Applied **Pearson, Spearman, and Kendall** correlation method for correlation analysis. Developed a time series forecasting model based on **LSTM** (Long Short-Term Memory) to predict power usage.
- Finalized the prediction model implementation which increased the power usage prediction accuracy from 75% to 92%. Also presented the model to the whole company for future reference and feedback.

PROJECTS EXPERIENCE

FerriMetric - an AI Nutrition Deficiencies PredictionApplication Boston University , Sep 2023-Dec2023

- Co-designed and implemented an AI-based nutritional deficiencies detection tool FerriMetric in order to identify patients' potential health risks due to unbalanced daily nutrition intake .
- Integrated with API to crawl and extract the nutritional information of top 5 popular meals from 10 countries using English. Cleaned and prepared data into **json** format. Applied **random forest** algorithm on the data to predict patient's iron bioavailability of iron and blood transferrin saturation.
- Presented research to company staff and professors at the Boston University Research Fair.

Nearest State finder Boston University, Sep 2023-Dec2023

- Designed and implemented a **C++** application, which takes the latitude and longitude as input and returns the nearest state for this location information as result.
- Employed **KD** tree for state's location information storage and retrieval; applied majority voting algorithm on calculating the nearest state from the given input location.

Bike Traffic python Prediction Tool Purdue University,May 2022-August 2022

- Designed and developed a prediction tool using **python** which helps in forecasting bike traffic during different time periods and recommended positions to install sensors for real time safety monitoring..
- Developed the prediction model using **multivariate linear regression model** by analyzing relationships between daily weather forecast data (5 attributes including temperature, (low/high temperature and precipitation and bicycle traffic using **sklearn**.
- Implemented **R square** algorithm on calculating positions with predicted maximum traffic flow for installing sensors..

ISD- OCC DALIY DETAIL Application Purdue University,Jan 2021- May2021

- OCC Daily Detail is an app designed for ISD (Indiana school for the Deaf) for teachers giving parents prompt feedback for students on their engagement and activities at school.
- Enhanced the ios frontend features on formatting, displaying and aesthetics including using **C** and **swfit**.
- Designed and Implemented the log in authentication feature using C++.
- Implemented the app localization feature which translates the application between English and Spanish using **C++** and **java**.

TikTok reminder FengChia University Sep 2019- Dec2019

- Designed an android app which remind people when should they do what.

Other Projects: **Beautiful "handwriting" machine**, **GUARD TOUR SUYSTEM,LASER HARP PROJECT**

SKILLS

Languages/Tools: C/C+ , Java, Python , SQL, Git, AWS, Android Studio, Matlab , PCB design, web design
Other: Machine learning, Critical Thinking , Data Science, Data visualization,Computer Engineering, System design,Economics,Algorithm, data analysis, Microsoft office,statistics, computer science