Wen (Vivien) Zhang

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EDUCATION

University at Buffalo, The State University of New York Buffalo, NY

- **Master of Science, Data Science** (STEM designated) Aug. 2021 - Dec. 2022 (Expected)
- GPA: 3.92/4.00
- Core Coursework: Machine Learning, Deep Learning, Statistical Learning, Data Mining, Probability

Anhui Normal University (AHNU) Wuhu, Anhui, China

- **Bachelor of Science, Geographical Information System** Aug. 2012 - Jul. 2016

WORK EXPERIENCE

Software Engineer, TravelFusion, Shanghai Mar. 2018 - Aug. 2021

- Integrated 10+ Low Cost Carriers APIs and 2 Full Service Carriers APIs to realize aggregation, extraction and transmission of flight booking information including airline ticket normal booking flow and post booking flow (Booking Change, Manage Booking, Custom Service Requests, PNR Cancellation, PNR Split, Order Change Notification, Delayed Payment, BSP/ARC Cash Payment and so forth) using Java
- Solved 1200+ JIRAs including implementing new requirements and maintaining airline ticket distribution platform
- Organized and programmed ANA NDC project which passed IATA Level 4 certification
- Operated MySQL to process and analyze airline ticket data set and improved the booking process accordingly
- Maintained close communication with airlines and customers (Online Travel Agencies and Meta-Search companies, e.g., Expedia, Google, Trip.com), solved unexpected problems and provided fast technical support

Intern, Twenty First Century Aerospace Technology, Beijing Mar. 2015 - Jul. 2015

- Processed and analyzed geographical information data and remote sensing image including data extraction, analysis, supervised and unsupervised classification and data visualization by ArcGIS and ENVI
- Inputted geographical information data into the SQL Sever and carried out the edit processing
- Programmed WebGIS applications by applying C# and JavaScript
- Designed databases for storing geographic data and edited data in Oracle database

PROJECTS

Analyzing Earthquake Data Using Machine Learning and Deep learning Oct. 2022 - Dec. 2022

- Cleaned an earthquake data set of 4,000+ records with 39 attributes and processed the data set including imputing missing data, normalizing data set and creating new features by Python in Google Colab
- Performed exploratory data analysis on the data to derive useful information and presented the findings with plots
- Applied Logistic regression, Decision Tree, Random Forest, Boosting and Neural Network to train and test data set to segregate a tsunami generating earthquakes from non-tsunami generating earthquakes
- Predicted the severity of the earthquake with ~90% accuracy using Gaussian Process Regression and Support Vector Regression and reported the findings in a tableau dashboard

Predicting Health Insurance Medical Bills Costs Using Machine Learning Oct. 2022 - Dec. 2022

- Cleaned a Medical Cost data set of 1300+ records with 7 attributes and normalized it to a SQLite database
- Produced figures and plots based on the database and analyzed the relationship between the features
- Predicted the individual cost of insurance with ~80% accuracy by Multiple Linear Regression model and Decision Tree model using age, body mass index and number of children on the insurance as the principal components

SKILLS

Languages: Python (Libraries: Pandas, NumPy, scikit-learn), Java, R, MATLAB, C#

Data Management & Analytics: MySQL, SQLite, Redis

Web Development: API Development, XML, Spring Boot, HTML / CSS, JavaScript, React

Tools: Eclipse, Jupyter, Visual Studio, Atlassian JIRA

AWARDS & HONORS

- Feb. 2021 The Outstanding Staff Award, TravelFusion
- Jun. 2016 The Excellent Undergraduate Thesis (Published), AHNU
- Mar. 2016 The Second-class Academic Scholarship for Excellent Undergraduates, AHNU