Jiale Zha

Tel: +1 7345464860 Email: jialezha@umich.edu

EDUCATION

University of Michigan, Ann Arbor 09/2021-05/2023 Master of Science in Applied Statistics Ann Arbor, MI Coursework: Data Science With Python NLP Algorithm and People 09/2017-07/2021 Nanjing University (NJU) Bachelor of Science in Mathematical Applications Nanjing, China First Prize of People's Scholarship, 2020 (Top 5%) Selected Honors: Coursework: Statistical Machine Learning Multivariate Statistical Analysis Stochastic Optimization Introduction to Database University of California, Berkeley 09/2019-12/2019 One-Semester Exchange Berkeley, CA Coursework: Concepts of Computing with Data Stochastic Process Optimization Models in Engineering **Concepts of Statistics**

SKILLS

Data Science

Python, C++, SQL, R, Machine Learning, Deep Learning, Statistical Analysis, Redshift, SageMaker

WORKING EXPERIENCE

Amazon 05/2022-09/2022 Data Scientist Intern Seattle, WA

Project on regional profit prediction in US market Investigated factors influencing regional profit, construct dataset by Redshift SQL with historical profit

information, build machine learning models (Random Forest, Gradient Boosting ...) to predict regional profit

Boya Big Data College 06/2020-09/2020 Data Scientist Intern Beijing, China

Conducted teaching research on the *Linux Operating System* and *Machine Learning*

Participated in the Aliyun Tianchi Second-hand Car Price Prediction Project, processed 150,000 entries of carrelated data with *PCA and MeanEncoder* Method and predict the price with *XGBoosting, Random Forest*...

Huatai Securities 07/2019-09/2019

Data Analyst Intern Nanjing, China

- Collected and merged client's account data, checked whether related bank statements
- Participated in the client risk evaluation, scored client's risk level according to the records of the risk system

DATA SCIENCE PROJECTS

Algorithm Research on Relation Extraction System

02/2022-05/2022

- Extracted relationship between entities in a sentence, built traditional SVM model with semantic features like token dependency and parse tree and deep learning model like Bi-LSTM and Transformer
- Trained and tested on the combined dataset from NYT, ACE2005 and Wiki, got over 77% accuracy, precision, recall and f1 score

Algorithm Research on Multi-Armed Bandit Problem

12/2020-06/2021

- Solved the *Multi-armed bandit problem* under partially observable 3-D Markov decision process
- Proved the effectiveness of classical Whittle Index Policy with Eigenvalue analysis and Matrix analysis
- Deduced a closed-form expression of Whittle Index in 3-D situation

Statistical Analysis on COVID-19 Development

03/2020-05/2020

- Aimed to analyze the development trend of COVID-19 in 7 provinces based on the SEIR model
- Deduced the infection rate, cure rate and mortality rate of COVID-19 in various regions through dichotomy combined with grid search, conducted fitting of the epidemic trend in line with the actual situation