# Zion Sheng

Address: 2530 Erwin Rd, 27705, Durham NC, USA | Cell: 713-413-7498 | Email: zion.sheng@duke.edu

# **EDUCATION**

Duke University Durham, USA

Master of Engineering in Electrical and Computer Engineering | current GPA: 3.67/4.0

Aug 2022 - now

Core Courses: Data Structure and Algorithms, Machine Learning, Data Science, Deep Learning, Natural Language Processing, Computer Engineering ML & Deep Neural Network

Central University of Finance and Economics (CUFE)

Beijing, China

Bachelor of Economics (minor in Financial Risk Management) | GPA: 3.89/4.0

Sep 2017 – Jun 2021

University of California, Los Angeles

Los Angeles, USA

2020 Summer | GPA: 4.0/4.0

 $Jun\ 2020 - Sep\ 2020$ 

Courses: MATH 151B (Applied Numerical Methods), MATH 33B (Differential Equations), and MATH 182 (Algorithms)

University of California, Los Angeles

Los Angeles, USA

 $2019 \; Summer \mid \text{GPA: } 3.5/4.0$  Aug 2019 - Sep 2019

Courses: MATH 131A (Analysis), and STATS 102B (Introduction to Computation and Optimization for Statistics)

#### WORK EXPERIENCE

Sina Corporation

Beijing, China

NLP Engineer Intern, Sina Weibo

Mar 2022 - May 2022

- Train a lightweight Bayes model to detect whether a tweet contains sensitive and vicious words based on the dataset of 100k tweets (accuracy at 88%).
- Maintain the text pre-processing program and monitored the data annotation and labeling output.
- Help to test the core convolutional neural net (CNN) model led by the senior NLP engineers, and write experiment reports in the development doc.

# Beijing Didi Infinity Technology and Development Co., Ltd.

Beijing, China

Data Analysis Intern, Data Operations Department

Dec 2020 - Apr 2021

- Build the data pipeline that encapsulates the whole process including querying the data in the data lake, computing business indicators, and importing them to the sub-level Hive database.
- Implement the automated update of the daily market report in GitBook and the data dashboard in Tableau.
- Carry out cluster analysis based on the service data of users and drivers, and group them by their preferences for different services. This helps the operating team improve the effectiveness of coupon distribution by 34%.
- Conduct time series analysis on the operating data in different cities to predict the supply and demand of the short-term travel service market. This narrows the average gap between supply and demand by 19%.

#### Gaosheng Information Technology Co., Ltd.

Hefei, China

Winter Intern, Big data Laboratory of R&D department

Jan 2020 - Mar 2020

- Develop a Python web-scrapping script to automatically collect millions of entries of stock price and company data.
- Write a module to compute key metrics and generate quick visualization to monitor the change in stock price, as well as capital inflows and outflows in the stock market.
- Assist in prototyping deep learning models for sentiment analysis of stock news, and cooperate with the software team to add the momentum analysis feature into the company's investment assistant software.

# ACADEMIC EXPERIENCE

### The Impact of Foreign Waste Imports on the Health of Chinese Residents

Student Research Project, Advisor: Dr. Bing Li (Sun Yat-sen University)

Feb 2018 - Oct 2018

- This project studies the impact of the imported foreign garbage on the statistics of certain diseases among residents in several Chinese cities from 2000 to 2017.
- Collect data on foreign waste imports, residents' health indicators, and other control variables. Use Python and PostgreSQL to organize the data and build the dataset.
- Used the R language to perform EDA, feature engineering, and regression analysis. The techniques and models applied include PCA, LDA, instrumental variable, two-stage least square, and fixed effects model.

### EXTRACURRICULAR ACTIVITIES

## Vice President, Mathematical Modeling Club, CUFE

Sep 2018 - Sep 2020

• Led workshops and training sessions to train more than 80 students on methods and tools for mathematical modeling, including differential equations, optimization methods, MATLAB and Python.

#### TECHNICAL SKILLS

Data Science, ML/DL, NLP, computational economics, web development, Python, C/C++, R, SQL, Java, MATLAB.