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# HAO(ANDREW) ZOU

2929 University Ave SE, Minneapolis, MN 55414, United States  
zou00080@umn.edu | +1 (631) 809 8931 | [zouhao0418.github.io](https://github.com/zouhao0418)

## EDUCATION

### University of Minnesota, Twin Cities

Minneapolis, US

B.S. Computer Science

GPA 3.829/4.00

Sep.2019 –June 2022 (Expected)

- **Coursework:** Advanced Machine Learning (FT), Computer Vision (FT), Biomedical NLP (FT), Deep Learning, Operating System, Algorithm and Data Structure, Programming Graphics and Games, Machine Architecture and Organization, Discrete Structures, Statistical Theory and Methods, Machine Learning, Linear Algebra, Python Programming, Big Data Processing Algorithm, Advanced Artificial Intelligence, Time Series Analysis
- **Research Interests:** NLP, Text Classification, Data Mining, Machine Learning

## RESEARCH EXPERIENCE

### NLP in Social Media

[Prof. Jaideep Srivastava](#)

University of Minnesota, US

Research Assistant, Data Management Research Group (DMR)

Oct.2020 –May.2021

- Weakly Supervised Learning in Social Media to extract different target-related topics and eliminate noisy instances as well
- Conducted user-level stance detection for Super Bowl Team Affiliation by semi-supervised framework and extended binary classification by Valence Score
- Made and compared different approaches for Ground Truth Labeling for Political Affiliation on Twitter
- Manually Labelled vocal users (retweeted at five times) in the SuperBowl dataset that have collected

### EEG Signal Analysis by Deep Learning

[Prof. Mujdat Cetin](#)

University of Rochester, US

Research Intern, Signal Processing and Information Systems Laboratory (SPIS)

Jun.2020 –Oct.2020

- Implemented LSTM with AutoEncoder model on DEAP dataset for emotional classification
- Implemented parallel CNN and RNN model on DEAP dataset for emotional classification
- Compared different insightful ways for data preprocessing including shuffling and taking the base signal into consideration

### Inter-State Correlation Analysis on The Silk Road Economic Belt and the 21<sup>st</sup>-Century Maritime Silk Road

Wuhan, CHN

Research Assistant, Python

Oct.2018 –Dec.2018

- Collected vector data of national scoring and completed Cluster Analysis with national scoring vector data and visualized results
- Performed PCA for dimensionality reduction and drew thermal maps for correlation analysis
- Executed in-depth quantitative analysis report combined with macroeconomics and assisted in multi-vector network analysis

### Emotion Analysis of film reviews for IMDB and Douban.com

Wuhan, CHN

Research Assistant, Python

Jul.2018 –Dec.2018

- Crawled the latest movie reviews on Douban.com and drew the word-cloud for analysis
- Implemented LSTM model by Tensorflow for emotional classification
- Established a valid model of 100% correct rate and loss value close to zero based on the LSTM to classify the emotion of the review put in

## INTERSHIPS & WORK EXPERIENCE

### Zhongda Innovation Valley Inc.

Wuhan, CHN

Quantitative Intern, Python

Sep.2018 –Dec.2018

- Finalized analysis of factor performance by Alphalens and Signaldigger in Python and data processing by Ta-lib and JAQS
- Achieved factor preprocessing, done multi-factor combination and visualization comparison by Python
- Done signal hypothesis by customizing ANN factors and implemented assumptions
- Researched on Bitcoin dataset from btcusdt:binance; Customized factors for training

### AXA Hong Kong

Hong Kong, CHN

Corporate and Industry Research

Feb.2018 –May. 2018

- Employed decentralized investments to reduce risk and the Markowitz model to calculate optimal industry weights based on historical data
- Conducted Stock Price Prediction using models such as CAPM and WACC; chosen Tencent as Star Price Stock and presented the report
- Involved in marco-economic research, collecting, and sorting global financial news for investment strategy adjustment purposes
- Researched Macao Gaming Industry, focused on financial data analysis of Sands China (1928) Galaxy Entertainment (27)

## ADDITIONAL INFORMATION & EXTRACURRICULAR ACTIVITIES

**Computer:** Java, Python, C, MySQL, Excel/VBA | Eviews, Gephi, LaTeX, Wind/Bloomberg

**Certifications:** CFA Level I Candidate

**Search Algorithm Workshop in TicTacToe and Puzzle8** (DFS, BFS, A-star and Minimax Alpha-Beta algorithms) (Oct. 2018–Dec. 2018)

Third place at the **2rd Python Machine Learning Strategy** in Chines Institution of Innovation, CII (May. 2018)