# **WANG ZIYUAN**

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Tel: (+86) 188-1787-6918; E-Mail: <u>wangziyuan@163.sufe.edu.cn</u> Date of Birth: April 6<sup>th</sup>, 1996; Gender: Male; Nationality: China

Research Area: Natural Language Processing/Deep learning/Quantitative Trading/Design Science My Website: https://doi.org/10.1009/phi/10.10

#### **Education**

### • Tippie College of Business, University of Iowa, Iowa

2022.4-2023.4, Visiting Scholar, majoring in Business Analytics.

Supervisor: Professor Weiguo Patrick Fan

Research Area: Deep Learning, Semantic Textual Similarity, Design Science.

### School of Information Management and Engineering, Shanghai University of Finance and

Economics, Shanghai

2018.9-now, PhD Candidate, majoring in Management Science and Engineering.

**GPA:** 3.6/4.0 **Rank:** Top10%

Supervisor: Professor Hailiang Huang, Associate Professor Songqiao Han

Research Area: Text Classification, Semantic Textual Similarity, Quantitative Trading, Design Science.

Awards: First Prize National Scholarship for Graduates, Second Prize National Scholarship for Graduates,

Outstanding Class leaders of School, Outstanding Students of School

# • College of Finance and Statistics, Hunan University, Changsha

2014.9-2018.6, Bachelor of Science in Statistics.

**GPA:** 3.8/4.5 **Rank:** Top5%

Awards: National Scholarship, Outstanding Graduate of Hunan Province, Citibank "Future Elite" Scholarship,

First-Class Scholarship for undergraduates, School of Merit student, Outstanding Class Leader

# **Publications & Research Project**

How Close is ChatGPT to Human Experts? Comparison Corpus, Evaluation, and Detection 2022.12-2023.02 Under Submission. Under Review.

- Co-first author. We initiated the ChatGPT Comparison and Detection Project, which collected human-ChatGPT comparison data and conducted statistical and linguistic analysis. Based on deep learning and machine learning, we developed a series of ChatGPT content detectors.
- We were the earliest team in academia and industry to open-source comparison datasets and detection models. The detector demo has been accessed over 200,000 times worldwide, and the open-source model has an average monthly download volume of over 20,000, with the dataset having an average monthly download volume of over 30,000. The project has received over 900 Github stars, with paper citation over 70. Recently, our work has been accepted by <a href="mailto:LLM@IJCAI"><u>LLM@IJCAI</u></a>(CCF-A, CORE-A\*). Please feel free to visit our <a href="mailto:Demo"><u>Demo</u></a> and <a href="mailto:Paper"><u>Paper</u></a>.

# Investigating Effectiveness of Whitening Post-processing on Modifying LLMs Under Submission. Under Review.

2022.10-2023.02

- First author. We explored different whitening methods for matrices to normalize the representation of the BERT model to reduce correlation, aiming to solve the assumption that traditional Bert semantic representation ignores orthogonality of cosine similarity basis, and evaluated performance on various NLP tasks.
- Supported by the Graduate Innovation Fund of Shanghai University of Finance and Economics (Project No. CXJJ-2021-052).

# New Hybrid Model of Crowdfunding Project: A Perspective of Prospect Backers Under Submission. Under Review.

2022.08-2023.01

Corresponding author. This work captures the heterogeneity of investor support behavior in crowdfunding by
introducing the prospect theory (PT), evaluates the prospect utility of the project, and makes support decisions
based on the evaluated prospect utility.

**IDEA:** Interactive Double Attentions from Label Embedding for Text Classification 2022.06-2022.09 **Accepted** by 34th IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2022, CCF-C, CORE-B, acceptance rate = 20%)

- First author. We proposed a simple method to improve the performance of BERT in text classification by utilizing label embedding technology in supervised learning. Based on the original BERT model, we proposed a new model structure that integrates text and label information.
- Supported by the National Natural Science Foundation of China (Project No. 72271151). Please feel free to visit our <a href="Paper">Paper</a>.

#### Web Tool: SUFE-CS-CONF-DDL

2022.01-2022.03

- Project initiator/project leader. We built a countdown system tool for the computer conference of Shanghai University of Finance and Economics based on Vue-Cli, providing dual retrieval of tenure track tier/CCF level.
- Please feel free to visit our visualization website <u>SUFE-CS-CONF-DDL</u>, and the open-source code of the project is available on <u>Github</u>.

# Analysis of Shanghai's Biopharmaceutical Industry Chain Based on Big Data and Comparative Study of the Yangtze River Delta (with Suzhou Bank) 2021.02-2022.01

- Algorithm Engineer. Combining big data intelligent industrial research technology with traditional industrial
  economics, we constructed a knowledge graph of the biopharmaceutical industry chain and conducted an
  analysis of the biopharmaceutical industry chain in the Yangtze River Delta.
- In May 2021, the leaders of the Shanghai Municipal Party Committee visited an economic regulatory platform in a certain district and fully recognized the achievements of the platform construction, pointing out that further efforts should be made to build a "city brain" upgraded version in Shanghai.

# Policy and Business Classification in Technology Public Opinion Recommendation Systems (with Shanghai Flaginfo Information Technology & PingAn Technology) 2021.08-2022.01

• Project leader of text classification. We crawled and cleaned policy texts released by the government, and conducted multi-label classification based on the business types of PingAn Technology's business group, with traditional and SOTA ML/DL text classification methods. Partial code: Github.

# The Dilemma of Charity—How to Save Crowdfunding Goodwill under Social Media. 2017.02-2017.05

- Project leader. I participated in the questionnaire writing, data collection and modeling, and paper writing throughout the 2017 National College Student Market Survey and Analysis Competition, and obtained the National Market Survey and Analysis Skills Certificate (CRA).
- Our team won the national second prize and the provincial first prize, and was the only team from Hunan Province to advance to the finals.

#### **Optimization of The Direct Metro Lines**

2016.11-2016.12

 Project Leader. I undertook the mathematical modeling, paper writing, and conducted multiple data analysis based on R in the 2016 "Certification Cup" International Mathematical Modeling Competition. Our team won the national H award.

## Study on the Current Situation and Influencing Factors of Rural Garbage.

2016.08-2016.09

• Data Analyst. I was responsible for the questionnaire writing, data cleaning and analysis, and empirical analysis part of the paper in the "Agricultural Development Bank Cup" summer research competition in 2016. Our team won the national first prize.

#### **Working Experience**

- Acedamic Reviewer: Applied Intelligence, International Journal of Computational Science and Engineering, ACM International Conference on Information and Knowledge Management.
- Teach Assistant: Advanced Machine Learning(Fall 2019), Application of Big Data in Economics (Fall 2021).
- Research Assistant: Working as RA in Fall 2020, Spring 2021, and Spring 2022 semesters.

### **Skills**

- IT: Python (Pytorch, Tensorflow, Keras), R, SPSS, MATLAB, MySQL; LaTeX; Microsoft Office
- ACCA: Association of Chartered Certified Accountants, F1-3
- Language: IELTS: 7.0(R/L/S/W:7.5/7.5/6.5/6.0); Mandarin Certificate (Level 1 B)
- Others: National Invention Patent, C-1 Driver License, Saxophone Level7