Yixi (Xander) ZHOU

702 Langdon St, Madison, WI 53706 | zhou658@wisc.edu | zhouyx2022@shanghaitech.edu.cn

EDUCATION

UNIVERSITY OF WISCONSIN-MADISON, Madison, WI 2025 Jan. - Expected May 2025

Visiting student in VISP program, Computer Science

SHANGHAITECH UNIVERSITY, Shanghai, China 2022 Sept. - Expected June 2026

Bachelor of Science Candidate, Computer Science and Technology, School of Information Science and Technology

- **Outstanding Student Cadre:** for managing tutoring group (2022 - 2023, 2023 - 2024)
- **Outstanding Individual in Social Practice:** for team leader position organizing project for 30 students (July 2023)
- **Outstanding Individual in Industry Research:** for team leader position organizing project for 30 students (July 2024)
- **Academic Interest**: Data science and data mining for economic and business historical and trend analyses.

EXPERIENCE

SHANGHAITECH UNIVERSITY, Shanghai, China 2022 – Present

Undergraduate Researcher, Financial Intelligence Laboratory | PI: Haipeng ZHANG **Sept. 2023 - Present**

- Using LLM and data mining and analyses to conduct research on human behavioral data mining and modeling and fintech modeling.
- Using Python for data cleaning, processing and visualization of a human behavior mining project related to detecting and mapping migration patterns for educational opportunities.
- Responsible for reviewing background research such as academic papers to select research topics.
- Third Author: *Fine-grained Classification of a Million Life Trajectories from Wikipedia by Fusing Syntactic Graph*. Submitted to IJCAI 2025.
- Participant in the Chinese Wikipedia segment of the project "Paths of A Million People: Extracting Life Trajectories from Wikipedia," presented at ICWSM 2025.

Social Practice Project, Yan'an, Shaanxi Province **July 9, 2023 - July 21, 2023**

Group Leader

- Led project of 30 students to research the model of high-quality transformation of the Yan'an economy
- Coordinated the implementation of practical activities, planned activity times and travel logistics.
- Coordinated with various parties, collected data and held discussions with various government departments in Yan'an to fully understand the local economic situation and specialty industries, and completed the research report.

Industry Research Project, Shanghai, China **July 30, 2024 - Aug 2, 2024**

Group Leader

- Led project of 30 students to research the Fintech (Finance technology) industries in Shanghai.
- Coordinated with various Fintech companies, collected data and completed the research report.

ACTIVITIES

2024 AMERICAN MATHEMATICAL MODELING CONTEST (ICM) **Feb. 2024**

Personal Project: Sustainability Insurance Modeling in Extreme Weather

- Created a crawler to collect relevant extreme weather data and insurance payout data to identify causal correlation; built the basic model architecture using Python and MATLAB.
- Predicting and evaluating premiums under extreme weather conditions through machine learning methods such as random forests and time series regression models.
- Independently completed a 15-page project paper visualizing the results of the model using Matplotlib.

2024 CTB HARVARD GLOBAL YOUTH RESEARCH INNOVATION FORUM **Mar. 2024**

- Participated in organizing the evaluation of high school student participants' projects and moderated discussions with moderator.
- Organized discussions on forum topics such as climate change and pollution reduction to ensure a smooth flow of activities.

2024 PwC Polytechnic Student Challenge Camp STEM Day **May 25, 2024**

- Independently completed a research report on Generative AI - Compliance Risk Management in less than half an hour; focusing on identifying risks such as confidential PwC data leaks and pulling of inaccurate data in LLM reports.
- Won Second Place prize in the group; credited for good information retrieval and project reporting skills.

Academic Project: Named Entity Recognition in Financial Technology **May, 2024**

- Developed and implemented Hidden Markov Model (HMM) and Conditional Random Field (CRF) algorithms for extracting named entities from financial news articles using Python.
- Analyzed the limitations of HMM's word independence assumption and enhanced the model performance by implementing CRF to capture word dependencies in financial contexts.
- Conducted comparative analysis between HMM and CRF approaches, documenting the methodology and results in a comprehensive technical report.

Quadratic Programming Solvers Research Project **Jan, 2025**

- Conducted comprehensive analysis of 23 QP solvers, categorizing them based on solution approaches including interior-point, active-set, operator splitting, and hybrid methods.
- Developed enhanced algorithms focusing on matrix-free IRWA with improved penalty parameter adaptation and ADAL implementation for mixed constraints.
- Performed extensive numerical experiments comparing 11 state-of-the-art solvers, validating the competitive performance of proposed enhancements through quantitative analysis.

Sina Weibo Social Media Engagement Prediction Challenge **Jan, 2025**

- Designed and implemented FRESH (Feature Random Forest Explained by SHAP Hyperboost) system, achieving 7th place ranking in the Tianchi competition with 31.51% accuracy rate on weighted evaluation metrics.
- Developed a novel Zombie user identification system and user profiling metrics, leading to a 57% improvement over baseline model through comprehensive feature engineering
- Built predictive models using Random Forest, XGBoost, and Neural Networks to analyze content characteristics, temporal patterns, and user behavior profiles for 24-hour engagement prediction.

SKILLS AND AWARDS

- **Languages**: Chinese (Native), English (Fluent)
- **Computer Skills**: C/C++ ; Python; MATLAB; Javascript/Html/CSS; SQL
- **Awards:** Third Prize in English Speech Contest for Young Students in Yangtze River Delta Colleges and Universities (2024)