YiXiao Zhang

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EDUCATION EXPERIENCE

Northeastern University   Sep.2022–Jul.2026
*Major:*Information Management & Information Systems   GPA:3.4686/5
Relevant Courses: An introduction to Database System(92), Business data analysis on Excel, Tableau, and Matlab (91), Business data analysis on R, Python, and Spark (92),Probability and Mathematical Statistics (92),etc.
Hanyang University | Hanyang International Winter School(4 credits)   GPA:4.25/4.5   Dec.2024-Jan.2025
Relevant Courses: Revolutions in Science and Technology(95), Modern Society & Marketing(90.75)
Hanyang University | Hanyang International Summer School(4 credits)   GPA:4.5/4.5   Jun.2025-Aug.2025
Relevant Courses: Global Entrepreneurship_Launch your startup(99.38),Korean for Beginners(100)

RESEARCH EXPERIENCE

Balanced Minimum Sum-of-Squares Clustering Problem   Jul.2024–Present

- Research Assistant in the National Natural Science Foundation of China Youth Fund Project "Research on Resource Scheduling in Cloud Data Centers for Complex Tasks". Implemented the algorithm in JAVA.
- I employed several key techniques. I repeatedly ran the K - means algorithm to secure the optimal initial solution.I also developed a fast evaluation technique to gauge the exchange cost and utilized the tabu search algorithm to optimize onemove and swapmove operations, thereby improving the solution quality.
- I integrated the population algorithm into the process. This algorithm was instrumental in preventing the algorithm from getting stuck in local optima. By exploring various search paths and enabling information sharing among individuals, it offered the best direction for evolution when the algorithm encountered local optima, enhancing the algorithm's exploration ability and overall solution quality.

INTERNSHIP EXPERIENCE

Chengdu Xiaoduo Technology Co., Ltd.   **Prompt Engineer (R&D Intern)**   Jul.2024 – Sep.2024

- Built a routing-style intelligent Agent based on the RAG framework, using large language models to rewrite and classify user queries, and routing them to four workflows: knowledge base Q&A, product Q&A, product recommendation, and product comparison.
- Established a vectorized database with Elasticsearch, completing lightweight vectorization storage of knowledge base content through manually defined semantic features (e.g., product keyword weights, question intent tags).
- Designed interactive visualizations and interfaces using Streamlit to create simple demos for showcasing the integration of retrieval augmentation technology in AI interactions.
- **Technologies:** Python, Elasticsearch, Streamlit, prompt

Shenzhen Bairen Biotechnology Co., Ltd.   **Platform Development Intern**   Oct. 2024 - Dec.2024

- Wrote automated scripts in Python to optimize data processing and analysis processes; proficiently used Docker container technology to build, deploy, and manage application environments; completed server management, file system operations, problem debugging, and high-performance computing tasks in the Linux environment.
- Wrote prompts based on gpt4o focused on bioinformatics, which can extract key information from source code or manuscripts and output it in JSON format.
- **Technologies:** Python, Docker, Linux

Migu Music Co., Ltd.   **Data Algorithm Intern**   Dec. 2024 - Mar.2025
- Developed and optimized prompts for large language models, text-to-image, and text-to-video models, using StableDiffusion for image generation to assist in building Spring Festival-themed agents.
- Conducted structured label recognition for audio, video, and image information, and was responsible for data construction.
- **Technologies:** Python, StableDiffusion, Prompt Engineering

Midea Group (Shanghai)   **Algorithm Intern (Human-Computer Interaction)**   Jul.2025 - Present
- Developed a Master Agent system using Streamlit framework to coordinate multiple sub-agents (data analysis/device control), implementing Mem0-based dynamic memory module for long-context conversation persistence.
- Designed and optimized prompt templates for memory extraction/update and response generation, improving context coherence in 80+ user test scenarios.
- Built interactive demo showcasing real-time agent decision logic and task decomposition processes, enabling intuitive user testing of HCI workflows.
- **Technologies:** Python, Streamlit, Mem0, Multi-Agent Systems, Prompt Engineering

PROJECT EXPERIENCE

Bank Customer Product Subscription Prediction   Independent Project Lead   Jun.2024 - Jul.2024
- Leveraged Jupyter Notebook and Pandas for preprocessing train.csv and test.csv, ensuring data integrity.Applied LabelEncoder for categorical variable encoding. Analyzed customer demographics and used Matplotlib to create heatmaps, identifying correlations between socioeconomic factors and subscription behaviors for targeted marketing.
- Implemented logistic regression, random forest, and XGBoost using scikit - learn. Employed 5 - fold cross - validation (KFold) and feature importance analysis to predict customer behavior and highlight key drivers. Also, configured LightGBM with parameters like n_estimators and learning_rate.
- Technology : Jupyter Notebook, Pandas, Matplotlib, scikit - learn, LabelEncoder, KFold, LightGBM

SKILLS

Data Analysis & Visualization: Proficient in Python, R, Jupyter Notebook for data mining; skilled in Tableau and Streamlit for interactive visualizations.
Full-Stack Development: Backend: Flask framework for stable service development;Frontend: Angular, HTML/CSS/JavaScript for responsive interface design.
Database Management: MySQL (relational) and Elasticsearch (vectorized) .
Tools & Infrastructure: Git (version control), VS Code, Linux, Docker (containerization).
Programming Languages: Python, Java, R, SQL.
Language Proficiency: CET-6 (English); Mandarin Level 2-B.

HONORS AND CERTIFICATIONS

Business Elite Challenge Accounting and Business Case Competition	**National First Prize**	Jun.2024
Northeastern University 11th Overseas Economic Management Scholars Seminar	**Outstanding Camper**	Jul.2024
Estonian National Summer School Full Scholarship (2025) (17/500)	€1,050 scholarship by Estonian Education and Youth Board.	
Bucharest Summer University Partial Scholarship (2025)	Selected for partial funding at 19th BSU (750+ participants).	
Zhejiang University	The 11th International Graduate Summer School of ZIERIP (3 credits)		Jun.2025-Jul.2025
Shanghai Jiao Tong University |SDG Summer Camp: Ocean Sustainability (2 credits)		Jun.2025-Jul.2025
University of Chinese Academy of Sciences	AI & Humanistic Economics Summer School		Jul.2025
University of Maryland	AI and Career Empowerment		Jun.2025
Hertie School (Berlin)	Data Science Summer School		Aug.2025
East China Normal University	National Summer School on Aquatic Biology & Hydroecology		Aug.2025