

Zi Yin (Astrid) Zhao

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Education

Mount Holyoke College	2020/08 – 2023/12
Bachelor of Arts in Computer Science, Statistics, Data Science <i>GPA</i> : 3.92/4.00	South Hadley, MA
• National Collegiate Athletic Association Division III <i>Equestrian Athlete</i>	2020/08-2023/12
AIT Budapest Computer Science Program	2023/01 – 2023/05

Work Experience

Morgan Stanley, Wealth Management	2023/05 – 2023/08
Software Engineer Internship	New York, NY
EDB-Downstream File Transformer for Order Activity: • Java, Copybook, Spring, Apache Camel	
• Integrated new features into the Equity-Brokerage order management platform, optimizing backend architecture of processing daily order verification activity in Enterprise Data Warehouse , allowing users to prepare sample feed and reducing communication time of order requirements between users and the firm by more than 70%.	
• Troubleshoot and solved critical issues in the existing system, and designed a new utility to enable the bidirectional conversion between Enterprise Database-feed binary format and human-readable CSV format files.	
AI Chatbot for Quickly Searching Metrics: • Python, DB2, Prompt Engineering, SQL	
• Collaborated with senior engineers to design a chatbot by employing OpenAI LLMs. This chatbot streamlines the aggregation of trade metrics from diverse systems, significantly enhancing operational efficiency in response to marketing news by (1) reducing the data collection and communication across the firm divisions, (2) providing multi-modal answers.	

Projects

AI-recipe Software Development demo • Python, LLaMA2, React, Flask, UX	2023/09 – 2023/11
• Engineered an innovative full-stack web application to deliver personalized recipes, implementing REST API and multi-threading for optimized backend-frontend communication, enhancing user experience and system efficiency. The application helps minimize food waste and aids in budget management for users.	
Moho Bot github.com/AstridZhao/moho_bot • Python, LLaMA2, Streamlit, Docker	2023/09 – 2023/11
• Created a chatbot for my school, leveraging retrieval-augmented generation. Built with Sentence-Transformers all-MiniLM-L6-v2 , Espilla Vector DB, etc. This chatbot efficiently sources and disseminates accurate information from the MHC website, facilitating easy access to reliable data for students and staff.	
Enhancing Sentiment Predictions with Labeling • Python, Chat-GPT	2023/02 – 2023/05
• Developed an LSTM neural network and an LLM-based labeling model approach, employing OpenAI for sentiment analysis of audience reviews, resulting in a remarkable 42% increase in predictive precision for movie recommendations.	

Research Experience

Support ECEP to Improve CS Education in US • Python, R, Data Analytics	2022/01 – 2022/05
• Conducted data analysis for a national organization, Expanding Computing Education Pathways (ECEP), to analyze the trends of CS education in the past 5 years. The reports help ECEP drive participation up by 2%.	
• Actively participated in code reviews, identifying and rectifying critical issues, resulting in a 75% reduction in post-release bugs and improving overall code quality.	

School Experience

• Top 10 rider in US IHSA Equestrian National Competition	2022/05
• <i>Event Faciliator</i> in Girls Who Code	2022/08 - 2023/12
• <i>Chair</i> in MHC Chinese Culture Association	2022-2023
• <i>Teaching Mentor and Lab Assistant</i> for Data Structures	2022/01 - 2022/12

Skills

• <i>Program Language:</i> Java • Python • R • C • Dart • JavaScripts • CSS • HTML • JSON • Tableau • Linux
• <i>Technical Interests:</i> Data Science • Software Design
• Strong problem-solving skills, quick adaptability to new technologies, and enthusiasm to learn new materials
• Excellent team player with great energy, outstanding communication abilities, and a personal-driving mindset