Zhang, Shengxin (Jack)

217-417-9848 |Email: jackshengxinz@gmail.com | www.linkedin/com/in/jack-zhang |github.com/jackshengxinz

Education

University of Illinois at Urbana Champaign August 2022 - Present
Computer Engineering & Statistics Minor
GPA.3.8/4.00

Related Coursework:

Linear Algebra Algorithms&Models Statistical & Probability Deep Learning For CV

Technical Skills

Programming Languages: Python, Java, C++, C, LC-3, SQL, SystemVerilog
Web Development: HTML, JavaScript
Frameworks & Tools: PyTorch, Git, React.js, Scikit-learn

Work Experience

Shanghai Artificial Intelligence Research Institute Shanghai, CN
Data Analyst Internship May 2023 – July 2023
Machine Learning Project

- Constructed a regression model predicting hospital construction costs using factors like bed count and room build.
- Engaged in data preprocessing and visualization.
- Developed a classification model for credit card fraud detection using logistic regression.
- Designed an object-detection neural network using Pytorch and the Yolov8 algorithm for soccer player detection.

Undergraduate Course Assistant (CS124, ECE110, STAT400) Aug 2023 – Present
University of Illinois at Urbana-Champaign, Champaign, IL

• Assisted teaching across three core undergraduate courses in Computer Science, Electrical Engineering, and Statistics.
• Provided office hours and academic support for over 100 students, explaining complex concepts in Java programming, circuit analysis, and statistical modeling.
• Graded assignments, quizzes, and lab reports efficiently with detailed feedback.
• Mentored and trained new teaching assistants to ensure high-quality instruction and course delivery.
• Proctored exams and maintained communication between faculty and students to address academic challenges.

Projects Experience

Multimodal Biometric Representation Research **April 2025 – Present**
Summer Research Intern, supervised by Prof. Wenyan Dong from West Lake University **Hangzhou, China**

• Explored the relationship between voice and facial anthropometric features by integrating physiological and vocal tract theory.
• Built a voice-to-face prediction pipeline using deep learning methods, incorporating uncertainty-aware estimation of 3D facial structure.
• Leveraged diffusion models to extract voice-based latent features aligned with facial geometry, enhancing interpretability and biometric fusion performance.

Serverless Workload Classification Sep 2023 – Dec 2023
Instructed by 5th year PhD student Haoran Qiu

- Explored serverless workload characteristics using clustering and classification.
- Utilized machine learning algorithms to cluster datasets based on cloud platform characteristics on OpenWhisk.

Fairness Guarantee under Demographic Shift July.2023-August.2023
Instructed by Prof. Pradeep Ravikumar from Carnegie Mellon University

- Proposed an algorithm that handle model's unfair prediction in machine learning (Focus on the resolving model's unfair behavior under demographic shift, covariate shift, marginal shift) using Pytorch to construct MLP and conduct experiment on different dataset.
- Constructed the structure of the algorithm and use a MLP for validation of the algorithm on the given problem.