Shenming Ji

(+86) 13308008188 Shenming.Ji21@student.xjtlu.edu.cn https://shenming-ji.github.io/

EDUCATION BACKGROUND

Xi'an Jiaotong-Liverpool University Suzhou, China

B.S. Information and Computing Science | GPA: 3.77/4.0 *Sep. 2021 - Jul. 2025 (Expected)*

PUBLICATION

[1] Gefei Zhang, **Shenming Ji**, Yicao Li, Jingwei Tang, Jihong Ding, Meng Xia, Guodao Sun, Ronghua Liang, "CPVis: Evidence-based Multimodal Learning Analytics for Evaluation in Collaborative Programming" in ACM CHI 2025. https://doi.org/10.48550/arXiv.2502.17835

[2] **Shenming Ji**, Wei Wang, Jianjun Chen, Jun Qi, "EEG-TBSANet: Temporal-Spectral Fusion Network for Robust Epilepsy Diagnosis from EEG" in IEEE INDIN(Accepted)

RESEARCH EXPERIENCE

Investigating the effect of collaboration patterns on bilibili's video performance and creator's individual growth

Xi'an Jiaotong-Liverpool University | Research Assistant Suzhou, China

Supervisor: Prof. Teng Ma *Jun. 2023 - Sep. 2023*

- Utilized Python to **web scrape** and analyze a dataset of 37k videos and 43k creators over a six-month period (Dec. 2022 - Jun. 2023).
- Applied **NetworkX** to construct a collaboration network for videos, and prepared cross-sectional data for regression analysis.
- Identified structural holes and conducted network analysis, revealing patterns through a U-shaped graph.
- Provided insights into effective collaboration strategies among Bilibili creators that contribute to successful video production.

Evaluating Collaborative Programming in the Classroom through Data-driven Multimodal Learning Analytics.

Texas A&M University | Visiting Student College Station, USA

Supervisor: Prof. Meng Xia *May. 2024 - Sep. 2024*

- Implemented **Faster-Whisper** and **Pyannote_audio** models for speech recognition and speaker diarization, offering detailed analysis of student interactions in collaborative sessions.
- Leveraged the API of **LLMs (GPT-4o)** with custom prompts to classify students' behaviors and roles, evaluate the level of teacher scaffolding, and analyze submitted code based on specified criteria for insights into classroom dynamics and performance metrics.
- Utilized **T-SNE** for student distribution visualization and group performance assessment, while **NMF** quantified behavioral and cognitive engagement, leveraging classification results from the LLMs.
- Developed an interactive system using **Vue** to aid instructors in understanding student collaboration and programming progress.

PROJECT EXPERIENCE

Patient Status Classification Suzhou, China

Team Leader *Feb. 2023 - Apr. 2023*

- Designed a classifier to analyze 15-question survey data, ensuring accurate and reliable predictions of patients' health status.
- Applied PCA for dimensionality reduction, effectively preserving critical features to improve the efficiency of model performance.
- Compared Random Forest, SVM, and Logistic Regression, recommending the best one based on performance outcomes.
- Used K-means for unsupervised clustering, providing data-driven justifications for accurately grouping and classifying patients.

Web-based Online Food Ordering System Suzhou, China

Front-End Developer *Feb. 2024 - Apr. 2024*

- Implemented the front-end view layer using JavaScript, HTML5, and CSS3 under the MVC architecture; developed user registration/login modules with form validation and local storage.
- Built a reusable RESTful API request module with Axios; integrated with a Spring Boot backend to render categorized menus and dynamic dish detail pages.
- Developed a shopping cart module using DOM manipulation and event delegation, supporting real-time total calculation, batch deletion, and flavor customization.

SKILLS

- **Programming:** C/C++, Python, Java, JavaScript, HTML/CSS, SQL, LaTeX
- **Tools:** Figma, VS Code, IntelliJ, PyCharm, WebStorm, MATLAB, MySQL, SolidWorks
- **Languages:** Mandarin (Native), English (IELTS: 7)