Lang Zhang

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AVAILABILITY FOR SUMMER 2025 INTERNSHIP

EDUCATION BACKGROUND

Virginia Tech, Virginia, USA   *Sep 2023 - May 2028 (Expected)*
Ph.D., Computer Science

Chongqing University, Chongqing, China   *Sep 2019 - June 2023*
B.S., Data Science (Dean's List)

RESEARCH INTEREST

Multi-modal Learning (e.g., Representation Learning and Generation)
LLM (e.g., Egocentric video understanding)
Data analysis (e.g., Health care, AR/VR, eye-tracking information and Human-centered Application)

PUBLICATIONS

1. **Zhang, L.**, & Xiao, F. (2024). Belief Rényi Divergence of Divergence and Its Application in Time Series Classification. *IEEE Transactions on Knowledge and Data Engineering.*

2. **Zhang, L.**, Xiao, F., & Cao, Z. (2023). Multi-channel EEG Signals Classification Via CNN and Multi-head Self-attention on Evidence Theory. *Information Sciences,* 642, 119107.

3. **Zhang, L.**, & Xiao, F. (2022). A novel belief χ^2 divergence for multisource information fusion and its application in pattern classification. *International Journal of Intelligent Systems*, *37*(10), 7968-7991.

4. **Zhang, L**., & Xiao, F. (2022, December). Belief Kullback-Leibler Divergence-based Dynamical Complexity Analysis for Biological Systems. In *2022 10th International Conference on Information Systems and Computing Technology (ISCTech)* (pp. 14-20). IEEE. (Best Paper Award)

5. **Zhang, L.**, & Xiao, F. (2022, December). Belief χ^2 Divergence-Based Dynamical Complexity Analysis for Biological Systems. In *International Conference on Machine Learning for Cyber Security* (pp. 158-167). Cham: Springer Nature Switzerland.

PROFESSIONAL SERVICES

External Reviewer

- IEEE International Conference on Computer Communications (INFOCOM 2024)
- Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT 2024)
- International Symposium on Theory, Algorithmic Foundations, and Protocol Design for Mobile Networks and Mobile Computing (MobiHoc 2024)

INTERSHIP EXPERIENCE

Ruanko.com   *Jun 2022 – Augst 2022*
   Student Applied Scientist Intern
   Worked on website data mining and data analysis.

Ruanko.com   *Jun 2021 – Augst 2021*
   Software Development Intern
   Worked on E-commerce Platform Software Development.

RESEARCH EXPERIENCE

Multi-modal Learning with Eye-tracking Information for Driver Distraction Detection *Sep 2023 – Sep 2024*

- Established LLM in implicit driver distraction analysis with eye-tracking information.
- Represented egocentric video and eye movement modalities.
- Deployed model for driver perception understanding tasks.

Belief Evidence Theory for Multisource Information Fusion *Sep 2021 – Jun 2023*

- Proposed diverse enhanced belief χ^2 divergence for information discrepancy extraction.
- Constructed algorithm for conflicting information fusion.
- Deployed model to real health care applications, including fatigue EEG recognition, pathological ECG detection.

TEACHING EXPERIENCE

Teaching Assistant, CS5045 Computation for Data Sciences I, Virgina Tech	*2023 Fall*
Teaching Assistant, CS3654 Intro Data Analytics & Visual, Virgina Tech	*2023 spring*
Teaching Assistant, CS5114 Theory of Algorithms, Virgina Tech	*2024 Fall*

HONORS AND AWARDS

CCI SWVA Cyber Innovation Scholarship, Commonwealth Cyber Initiative (CCI)	*2023*
Dean's Honor List, Chongqing University	*2023*
Academic Excellence Scholarship, Chongqing University	*2022*

SKILLS

Language: English / Mandarin

Programming: Python (Numpy, Pandas, Pytorch), MATLAB, MySQL, Latex, Java, HTML