Xueyi Wang

Contact: Email: xueyi.wang@rug.nl

Language: Chinese (Native Speaker), English (High Proficiency), Dutch (A2)

LinkedIn: www.linkedin.com/in/xueyiwang

Google Scholar: https://scholar.google.com/citations?user=gRf7ARwAAAAJ&hl=en&oi=ao

Persoanal Website: https://xueyi-wang.github.io/

Education

University of Groningen   2018.07–2024.03

PhD in Bernoulli Institute for Mathematics, Computer Science and Artificial Intelligence

Supervisors: Prof. dr. Dimka Karastoyanova, Prof. dr. George Azzopardi

Research interest: Artificial Intelligence, Machine Learning, Deep Learning, Computer Vision , Time Series Analysis, Human-Computer Interaction, Smart Health, IoT, Edge Computation.

University of Science and Technology of China   2014.09-2017.07

Master of Engineering in School of Science and Engineering

Sichuan University   2010.09-2014.07

Bachelor of Engineering in School of Science and Engineering

Working Experience

Postdoc researcher in University of Groningen   2023.12–Present

Group: Discrete Technology and Production Automation

Supervisors: Dr. Elisabeth Wilhelm

Project: Healthy Living as Service funded by The Dutch Research Council (NWO)

Publications

[Q1] Wang, X., Talavera, E., Karastoyanova, D., & Azzopardi, G. (2023). Fall detection with a non-intrusive and first-person vision approach. *IEEE Sensors Journal*.

[Q2] Wang, X., Ellul, J., & Azzopardi, G. (2020). Elderly fall detection systems: A literature survey. *Frontiers in Robotics and AI, 7*, 71.

[Conference] Wang, X., Talavera, E., Karastoyanova, D., & Azzopardi, G. (2021, January). Fall detection and recognition from egocentric visual data: A case study. In *International Conference on Pattern Recognition* (pp. 431-443). Cham: Springer International Publishing.

[Conference] Wang, X., Risi, N., Talavera, E., Chicca, E., Karastoyanova, D., & Azzopardi, G. (2023, September). Fall detection with event-based data: A case study. In *International Conference on Computer Analysis of Images and Patterns* (pp. 33-42). Cham: Springer Nature Switzerland.

[Conference] Wang, X., Bellink, C., Lamoth, C., & Wilhelm, E. (2024, November). Multivariate Stress Forecast from Sparse Data during Lifestyle Interventions. In IEEE International Conference on E-health Networking, Application & Services

[Conference] Wang, X. (2024, December). Egofalls: a visual-audio dataset and benchmark for fall detection using egocentric cameras. In the International Conference on Pattern Recognition (ICPR).

[Conference] Wang, X., C., Lamoth, C., & Wilhelm, E. (2025, July). Personalized Sleep Prediction via Deep Adaptive Spatiotemporal Modeling and sparse data. In 47th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (Accepted).

Research experience

PhD Projects: Autonomous Health monitoring by Deep learning methods
- ✓ **Fall Detection:** This study has collected and created the EGOFalls multimodal fall detection dataset. We developed multimodal algorithms that integrate visual and audio data, to achieve high accuracy across different environments and lighting conditions. Furthermore, we also investigated event camera data and low-power fall detection algorithms based on spiking neural networks.

- ✓ **Athletes health monitoring**: We collaborated with local sports clubs to obtain training and rehabilitation data for their athletes over several years. Based on this relevant data, we developed algorithms to identify and predict the likelihood of athlete injuries. This approach aims to prevent injuries and extend the athletic career of the athletes.

Postdoc Projects: Healthy living as service
- ✓ **Wearable Device-Based Daily Monitoring:** The project utilizes commercial wearable devices such as Garmin to collect users' physiological data and employs deep learning algorithms to develop an intelligent prediction system. The system analyzes key health indicators, including stress levels, sleep quality, and body energy status (Body Battery), in real-time, assisting users in optimizing their health management. By leveraging big data and artificial intelligence technologies, this project offers innovative solutions in the field of intelligent health monitoring.

- ✓ **Seizure Detection:** The project employs sensor technologies such as EEG,ECG,EMG, motion to detect seizures in real-time. It develops a multimodal intelligent algorithm based on deep learning to accurately identify seizure. The system aims to provide effective corrective recommendations to prevent health issues associated with seizure detection.

Teaching and Co-supervision

Teaching Assistant   2024.09-2024.11
Course: Introduction to data Science (ME) WMME027-05
Role: Giving lectures, Q&A, and Grading

Master Thesis Co-Supervision
Hichem Bouakaz   2020.01-2020.12
Helmus, Mark   2020.01-2020.12
Sofie Lövdal   2020.10-2021.04

PhD Co-supervision
Channah Belink   2023.12

Skills:

- ✓ Experimental Design: Expertise in designing experiments and data collection for healthcare.
- ✓ Grant Writing: Experience in writing research proposals and securing funding.
- ✓ Proficient in machine learning and deep learning algorithms, with extensive experience using programming languages such as Python, R, and MATLAB.
- ✓ Skilled in applying frameworks such as TensorFlow, PyTorch, and Keras to design complex neural network models.
- ✓ Experienced in big data processing and familiar with Docker containerization technology.
- ✓ Proficient in using Git for version control and collaborative development.