# Hui Wei

🗘 github.com/wll199566 🌗 davidhuiwei.github.io 🎔 @HuiWei15 🗖 huiwei2@ucmerced.edu

## **EDUCATION**

Electrical Engineering and Computer Science, University of California, Merced	2025 - Present
Ph.D. student in Computer Science	GPA: 4.0/4.0
Courant Institute of Mathematical Sciences, New York University	2017 - 2019
M.S. in Computer Science	GPA: 3.8/4.0
Beijing University of Posts and Telecommunications	2013 - 2017
B.Eng. in Telecommunication Engineering	GPA: 3.8/4.0

## **RESEARCH INTERESTS**

Machine Learning, Large Language Models, Time Series, Internet-of-Things.

## **RESEARCH EXPERIENCE**

#### **Research Scientist Intern**

PAII.Inc (Ping An Technology North America Research Institute, Sillicon Valley)

- Worked on systematic evaluation on **LLM-as-a-Judge** methodology with summarization and conversation tasks.
- Worked on improving **proximal policy optimization** algorithms for better LLM alignment with human preferences.
- One paper [1] was submitted to AAAI 2025 (AI Alignment Track) and one paper [2] was submitted to NAACL 2025.

## **Research Assistant**

UMass Amherst

- Worked on a temporally sparse self-attention model to address the missing data problem in large-scale longitudinal physical activity data from the All of Us research program.
- Worked on a **variational auto-encoder model** for irregularly sampled ICU data with various output distributions.
- Worked on a reconstruction-based **contrastive learning** approach to improve the quality of time series encodings.
- One paper [3] was accepted by CHIL 2024 and ICLR workshop on Learning from Time Series for Health 2024.
- One paper [4] was accepted by ICLR 2024.

## **Research** Assistant

NYU Grossman School of Medicine

- Worked on evaluation of diagnostic accuracy and fairness for Alzheimer's disease and Lewy body disease.
- Worked on CNN, LSTM and Transformer-based models for disease onset prediction using NYU EHR data.
- One paper [5] was accepted by the journal Frontiers in Aging Neuroscience 2023.

# PUBLICATIONS

\* indicates equal contribution

- 1. Hui Wei, Zihao Zhang, Shenghua He, Tian Xia, Shijia Pan, and Fei Liu. "PlanGenLLMs: A Modern Survey of LLM Planning Capabilities." arXiv preprint arXiv:2502.11221 (2025).
- 2. Jingyang Lin, Andy Wong, Tian Xia, Shenghua He, Hui Wei, Mei Han, and Jiebo Luo. "Facilitating Long Context Understanding via Supervised Chain-of-Thought Reasoning." arXiv preprint arXiv:2502.13127 (2025).
- 3. Hui Wei\*, Shenghua He\*, Tian Xia, Andy Wong, Jingyang Lin, Mei Han. "Systematic Evaluation of LLM-as-a-Judge in LLM Alignment Tasks: Explainable Metrics and Diverse Prompt Templates." arXiv preprint arXiv:2408.02373 (2024).
- 4. Hui Wei, Maxwell A. Xu, Colin Samplawski, James M. Rehg, Santosh Kumar, Benjamin M. Marlin. "Temporally Multi-Scale Sparse Self-Attention for Physical Activity Data Imputation." Conference on Health, Inference, and Learning (CHIL). PMLR, 2024.
- 5. Maxwell A. Xu, Alexander Moreno, Hui Wei, Benjamin M. Marlin, James M. Rehg, "Retrieval-Based Reconstruction for Time-series Contrastive Learning." 12th International Conference on Learning Representations (**ICLR**), 2024.
- 6. Hui Wei, Arjun V. Masurkar, and Narges Razavian. "On Gaps of Clinical Diagnosis of Dementia Subtypes: A Study of Alzheimer's Disease and Lewy Body Disease." Frontiers in Aging Neuroscience 15 (2023): 1149036.

Palo Alto, CA

05/2024 - 08/2024

09/2022 - 01/2024

02/2019 - 06/2020New York City, NY

Amherst, MA

# TEACHING EXPERIENCE

## Head Teaching Assistant, UMass Amherst

COMPSCI 485: Introduction to Natural Language Processing

- Advised student teams on final project ideas and provided extra weekly office hours for additional support.
- Managed grading for homework, exams, and in-class exercises, and handled online student questions.

## Teaching Assistant, UMass Amherst

COMPSCI 250: Introduction to Computation

• Led weekly discussion and lab sessions, held regular office hours to support students, and graded assignments.

## AWARDS AND HONORS

Student Spotlight, Neuroscience at UMass Amherst, 2023. Merit Student Scholarship, Beijing University of Posts and Telecommunications, 2013-2017.

## ACADEMIC SERVICES

Reviewer, workshop on Building Trust in LLMs and LLM Applications, ICLR 2025. Reviewer, workshop on Learning from Time Series for Health, ICLR 2024 and NeurIPS 2022. Reviewer, *IEEE Journal of Biomedical and Health Informatics* (JBHI) 2024. Evaluation committee, workshop on DATA, Sensys & Buildsys 2024, 2023, 2022.

## TECHNICAL SKILLS

Languages: Python, C/C++, Bash, LATEX, Markdown, SQL, HTML/CSS Libraries: PyTorch, NumPy, Matplotlib, Pandas, Scikit-Learn, Seaborn, SciPy Tools: Linux, Git/GitHub 01/2024 - 05/2024 Amherst, MA

09/2024 - 12/2024 Amherst, MA