Peerawat Pannattee

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Homepage LinkedIn Google Scholar

Career Objective

Passionate researcher with a strong foundation in **deep learning**, and hands-on experience in **computer vision** and **time-series analysis**. Currently pursuing a Ph.D. at Tokyo Metropolitan University (expected Sept. 2025), focusing on AI-driven **user experience (UX)** assessment in **virtual reality (VR)**. Strong interest in advancing broader **AI applications**, particularly in **large language models (LLMs)**, with a commitment to solving complex problems and driving innovation through intelligent systems.

Skills

Programming Languages: Python, C# (basic proficiency)
Tools & Libraries: PyTorch, Hugging Face, OpenCV, Unity, OpenXR
Research Areas: Applications of Artificial Intelligence, User Experience in Virtual Reality

Research Experience

Ph.D. Candidate, Nishiuchi Lab, Tokyo Metropolitan University 2022 – Present

- Developed a deep learning framework for UX assessment in VR, focusing primarily on behavioral data.
- Designed VR simulations for behavioral data collection and investigated factors such as cybersickness, presence, and emotional states.
- Co-authored research papers and contributed to academic discussions.

Research Assistant, Deep Learning Research Lab, KMUTT 2021 – 2022

- Developed a deep learning framework for fingerspelling recognition in continuous, real-world video settings.
- Applied techniques such as multi-task and contrastive learning to enhance recognition performance and achieve state-of-the-art results.
- Contributed to research reports and academic publications.

Projects

LLM Project Playground 2025 – Present
GitHub Repository

- Curated and implemented a series of hands-on toy projects to explore key aspects of LLMs.
- Investigated topics such as model architecture, fine-tuning techniques, and dataset preparation for domain specific tasks.

Undergraduate Senior Project 2018 – 2019

- Developed a deep learning model for sentiment analysis of Thai restaurant reviews, applying LSTM and word2vec for improved text classification accuracy.
- Designed and implemented the complete data preprocessing pipeline, including web scraping, data cleansing, and text normalization.

Education

Ph.D. in Computer Science 2022 – Present (expected Sept. 2025)
Tokyo Metropolitan University, Japan
Research: Automated UX assessment framework for VR using deep learning approaches.

M.E. in Electrical Engineering 2019 – 2021
KMUTT, Thailand
Research: Deep learning-based fingerspelling recognition in real-world dynamic settings.

B.E. in Electronics and Telecommunication 2015 – 2019
KMUTT, Thailand
Senior Project: Sentiment analysis of Thai restaurant reviews using deep learning approaches.

Selected Publications

- **Pannattee, P.**, Fukuchi, Y., & Nishiuchi, N. (2025). MUXAS-VR: A Multi-dimensional User Experience Assessment System for Virtual Reality, *IEEE Access*. DOI: 10.1109/ACCESS.2025.3573382
- **Pannattee, P.**, Shimada, S., Yem, V., & Nishiuchi, N. (2025). deep learning framework for automatic assessment of presence in virtual reality using multimodal behavioral cues, *Neural Computing and Applications*. DOI: 10.1007/s00521-024-10943-3
- **Pannattee, P.**, Kumwilaisak, W., Hansakunbuntheung, C., Thatphithakkul, N., & Kuo, C. C. J. (2024). American Sign Language Fingerspelling Recognition in the Wild with Spatio-Temporal Feature Extraction and Multi-Task Learning. *Expert Systems with Applications*. DOI: 10.1016/j.eswa.2023.122901
- Shimada, S., **Pannattee, P.**, Ikei, Y., Nishiuchi, N., & Yem, V. (2023). High-Frequency Cybersickness Prediction Using Deep Learning Techniques with Eye-Related Indices. *IEEE Access*. DOI: 10.1109/ACCESS.2023.3312216
- Kumwilaisak, W., **Pannattee, P.**, Hansakunbuntheung, C., & Thatphithakkul, N. (2022). American Sign Language Fingerspelling Recognition in the Wild with Iterative Language Model Construction. *APSIPA Transactions on Signal and Information Processing*. DOI: 10.1561/116.00000003

Awards

- **Best Paper Award**, AIVR 2024, for the presentation of the study titled "Investigating the Use of Deep Neural Networks for Predicting Perceived Realism in VR Scenes," 2024.
- **National Research Award**, National Research Council of Thailand, for contributions to Thai Sign Language technology, 2024.
- **MEXT Scholarship**, Japanese Government, awarded for Ph.D. studies.

Languages

Thai: Native
English: Fluent

References

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