

# Peerawat Pannattee

✉ pannattee-peerawat@ed.tmu.ac.jp

🏠 Homepage

✉ peerawat.pannattee@gmail.com

in LinkedIn Profile

🔍 Google Scholar Profile

---

## 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 on a multimodal framework considering both behavioral cues (e.g., body movements, facial expressions) and objective visual attributes (e.g., visual complexity, motion dynamics).
- Investigated factors such as cybersickness, presence, and emotional states in VR experiences.
- Designed VR simulations for research experiments and behavioral data collection.
- Co-authored research papers and actively contributed to academic discussions.

**Research Assistant**, *Deep Learning Research Lab, KMUTT*

2021 – 2022

- Developed a deep learning framework for fingerspelling recognition in continuous and real-world video settings.
  - Applied techniques such as multi-task learning and contrastive learning to enhance recognition accuracy.
  - Contributed to research reports and co-authored academic publications.
- 

## Projects

**LLM Project Playground**

2025 – Present

📁 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.
- Documented insights and implementation details to share learnings with the community.

## 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 – Expected Sept. 2025)

Tokyo Metropolitan University, Tokyo, Japan

*Research:* AI-driven UX assessment in VR, focusing on multimodal input of behavioral cues and visual attributes.

### M.E. in Electrical Engineering (2019 – 2021)

King Mongkut's University of Technology Thonburi (KMUTT), Thailand

*Research:* Deep learning-based fingerspelling recognition in real-world dynamic settings.

### B.E. in Electronics and Telecommunication (2015 – 2019)

King Mongkut's University of Technology Thonburi (KMUTT), Thailand

*Senior Project:* Sentiment analysis of Thai restaurant reviews using deep learning approaches.

---

## Selected Publications

- **Pannattee, P.**, Fukuchi, Y., & Nishiuchi, N. (2024). *MUXAS-VR: A Multi-dimensional User Experience Assessment System for Virtual Reality*. **Preprint**. [Access Preprint]
  - **Pannattee, P.**, Shimada, S., Yem, V., & Nishiuchi, N. (2025). A deep learning framework for automatic assessment of presence in virtual reality using multimodal behavioral cues. *Neural Computing and Applications*, 1-21. <https://doi.org/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*, 243, 122901. <https://doi.org/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*. <https://doi.org/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*, 11(1). <https://doi.org/10.1561/116.00000003>
- 

## Awards

- **Best Paper Award**, 8th International Conference on Artificial Intelligence and Virtual Reality (AIVR), 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 proficiency
  - **English:** Fluent
- 

## References

### **Dr. Nobuyuki Nishiuchi**

Professor | Graduate School of Systems Design, Tokyo Metropolitan University  
nnishiuc@tmu.ac.jp

### **Dr. Yosuke Fukuchi**

Assistant Professor | Graduate School of Systems Design, Tokyo Metropolitan University  
fukuchi@tmu.ac.jp

### **Dr. Vibol Yem**

Associate Professor | Institute of Systems and Information Engineering, University of Tsukuba  
yem@iit.tsukuba.ac.jp