Wichayaporn Wongkamjan

Research Interests

My research sits at the intersection of **Reinforcement Learning**, **Natural Language Processing**, and **Human-AI Interaction**, with a particular focus on LLM agents, with experience in finetuning using SFT, DPO and GRPO to optimize their behavior towards implicit reward signals, e.g., collaboration and deception. In addition, I explore how AI can support humans in decision-making and language tasks, e.g., Diplomacy and CaSiNo.

Education

University of Maryland — College Park, MD
Doctor of Philosophy (Ph.D.) in Computer Science — *Aug. 2021 – Present*

- Advisor: Prof. Jordan Boyd-Graber
- Expected graduation: 12/26

Master of Science (M.S.) in Computer Science — *Aug. 2019 – May 2021*

Chulalongkorn University — Bangkok, Thailand
Bachelor of Science (B.S.) in Computer Science & Mathematics — *May 2013 – May 2017*

Experience

Graduate Research Assistant — Jan. 2022 – Present
University of Maryland — *College Park, MD*

- Currently supported by DARPA-FACT; PI: Jonathan May (USC) and co-PIs: Jordan Boyd-Graber (UMD) and Jonathan K. Kummerfeld (USydney).
- *In progress: RL optimization in multi-turn negotiation tasks*: LLMs struggle with long-horizon tasks and scarce rewards, we finetune Llama 3.1 and integrating active learning (using surprisal embedding) with baselines SFT, DPO and GRPO (RLVR and reward shaping), to improve LLMs.
- *In progress: Next Token Prediction*: efficiently improve LLMs to think before speak (Quiet-Star), dynamically select tokens to think and design rewards to verify thought tokens.
- *Highlight projects:*
  - *CTRL-D*: grounding natural language space into action space, using counterfactual RL for value estimation to detect human lies.
  - *Human-AI interactions*: benchmarking Meta's Cicero to highlight its competence against humans, and building Cicero to assist beginners to make decisions and talk like experts.

Graduate Teaching Assistant — Aug. 2019 – Dec. 2021
University of Maryland — *College Park, MD*

- CSMC742 Algorithms in Machine Learning (Fall 2021).
- CSMC412 Operating Systems (Spring 2021, Fall 2020).
- CSMC424 Database Design (Spring 2020, Fall 2019).

Business Intelligence Developer — Jan. 2019 – June 2019
True Digital Group — *Bangkok, Thailand*

- Provided Tableau training to Business Intelligence and Analytics team
- Lead BI team with Agile methodology

Business Intelligence Developer — June 2017 – June 2018
Agoda Inc. — *Bangkok, Thailand*

- Delivered BI Solutions for PPC marketing
- ETL and Visualized PPC data using SQL, Tableau and Google Data Studio

Publications

- **W. Wongkamjan**, Y. Wang, F. Gu, D. Peskoff, J. K. Kummerfeld, J. May, J. Boyd-Graber. "Should I Trust You? Detecting Deception in Negotiations using Counterfactual RL." *Findings of the Association for Computational Linguistics* (ACL Findings), 2025. paper code
- F. Gu, **W. Wongkamjan**, J. K. Kummerfeld, D. Peskoff, J. May, J. Boyd-Graber. "Personalized Help for Optimizing Low-Skilled Users' Strategy." *The Nations of the Americas Chapter of the Association for Computational Linguistics* (NAACL), 2025. paper
- **W. Wongkamjan**, F. Gu, Y. Wang, U. Hermjakob, J. May, B. Stewart, J. K. Kummerfeld, D. Peskoff, J. Boyd-Graber. "More Victories, Less Cooperation: Assessing Cicero's Diplomacy Play." *Annual Meeting of the Association for Computational Linguistics* (ACL), 2024. paper
- N. Nananukul, **W. Wongkamjan** "What if Red Can Talk? Dynamic Dialogue Generation Using Large Language Models." Wordplay: When Language Meets Games (ACL Workshop), 2024. paper
- X. Wang, R. Zheng, Y. Sun, R. Jia, **W. Wongkamjan**, H. Xu, F. Huang. "COPlanner: Plan to Roll Out Conservatively but to Explore Optimistically for Model-Based RL." *International Conference of Learning Representation* (ICLR), 2024. paper
- X. Wang, **W. Wongkamjan**, R. Jia, F. Huang. "Live in the Moment: Learning Dynamics Model Adapted to Evolving Policy." *International Conference on Machine Learning* (ICML), 2023. paper

Professional Service

- Reviewer: NeurIPS 2025, ARR 2024–2025, CHI 2025, AAAI GenPlan 2025.

Technical Skills

Programming Languages: C/C++, Python, R, SQL, MATLAB
Deep Learning: PyTorch, TensorFlow
Data Systems: Hadoop, BigQuery
Data Tools: Tableau, Google Data Studio
Other: Unreal Engine 4