# Jayden Teoh

Email ⋄ GitHub ⋄ LinkedIn ⋄ Google Scholar ⋄ Website

## Professional Experience

**Microsoft**                                                                                     New York
Research Intern                                                                    05/2025 – Present
- Supervised by John Langford under the AI Frontiers group.
- Leading "Next-Latent Prediction Transformers Learn Compact World Models", a project where I proposed a novel algorithm for improving the world-modeling and planning capabilities of transformer language models.

**CARE.ai Labs**                                                                                 Singapore
AI Researcher                                                                      05/2023 – Present
- Led research projects on deep reinforcement learning under the supervision of Prof. Pradeep Varakantham.
- Published first author publications accepted at ICLR 2025, NeurIPS 2024 (oral), and AAMAS 2024.

**London Initiative for Safe AI (LISA)**                                                         London
Research Assistant                                                              06/2024 – 08/2024
- Research focusses on developing evaluations and elicitation mechanisms for AI sandbagging.
- Co-authored a publication accepted at ICML 2025.

**Continental**                                                                                  Singapore
Machine Learning Engineer Intern                                               04/2024 – 07/2024
- Developed a novel diffusion-based generative framework for creating tire tread patterns optimized for varying weather conditions.

## Education

**Singapore Management University**                                                              Singapore
Computer Science, Major in Artificial Intelligence                                        2023 – 2026
- Ranked 1st out of 154 students in cohort every year.
- GPA >4.0/4.0. Summa Cum Laude, Dean's list for all semesters.

## Selected Publications

**Next-Latent Prediction Transformers Learn Compact World Models**                               View
Jayden Teoh, Manan Tomar, Kwangjun Ahn, Edward S. Hu, Pratyusha Sharma, Riashat Islam, Alex Lamb, John Langford
- Microsoft Research Preprint, work in progress.

**On Generalization Across Environments In Multi-Objective Reinforcement Learning**              View
Jayden Teoh, Pradeep Varakantham, Peter Vamplew
- ICLR 2025

**The Elicitation Game: Evaluating Capability Elicitation Techniques**                           View
Felix Hofstätter*, Teun van der Weij*, Jayden Teoh*, Henning Bartsch, Francis Rhys Ward
- ICML 2025

**Improving Environment Novelty Quantification for Effective Unsupervised Environment Design**   View
Jayden Teoh, Wenjun Li, Pradeep Varankantham
- NeurIPS 2024 (Oral, Top 0.4%)

**Unifying Regret and State-Action Space Coverage for Effective Unsupervised Environment Design** View
Jayden Teoh, Wenjun Li, Pradeep Varankantham
- AAMAS 2024 (Extended Abstract)

**The Belief State Transformer**                                                                 View
Edward S. Hu, Kwangjun Ahn, Qinghua Liu, Haoran Xu, Manan Tomar, Ada Langford, Jayden Teoh, Bryon Xu, David Yan, Dinesh Jayaraman, Alex Lamb, John Langford
- Contributed post-publication

## Academic Service

**Reviewer** 2025 – Present
- ICLR 2025
- NeurIPS 2025 Datasets & Benchmarks Track
- World Modeling Workshop (WMW) 2026

## Invited Talks

**NeurIPS 2024 Oral** 2024
- Selected as one of top 72 papers (out of 15,671 submissions) for oral presentation: "Improving Environment Novelty Quantification for Effective Unsupervised Environment Design". Online Access.

**Talk @ Microsoft Research AI Frontiers** 2025
- Presented "Next-Latent Prediction Transformers Learn Compact World Models", a recent Microsoft Research project led by me.

**Talk @ Riot Games Singapore** 2025
- Presented my research "Next-Latent Prediction Transformers Learn Compact World Models" to the Riot Games research team.

## Teaching Experience

**Programs Lead, SMU A.I.** 2024 – 2026
- I broaden access to education in A.I. within the school by teaching workshops, leading reading groups for ML research papers, and hosting talks by external industry experts.

**Programs Lead, SMU .Hack** 2023 – 2024
- I organized and taught technical workshops for undergraduates on topics such as Python programming for freshmen, LeetCode problem-solving, MERN stack web development, etc.

**Volunteer Mentor, Project Heartcode** 2023 – 2024
- I taught financially-underprivileged secondary school students basic web development skills such as HTML, CSS, and Javascript, and guided them towards presenting their own web application.

## Awards and Scholarships

**SMU School of Computing & Information Systems Achievements Scholarship** 2023 – 2026
- University scholarship for students with strong academic results and character record.

**Outstanding First Year Student Award** 2024
- Top student in Year 1 of CS undergrad cohort.

**GovTech Award for Top Second Year Computing & Information Systems Student** 2025
- Top student in Year 2 of CS undergrad cohort.

## Technical Skills

- **Programming Languages**: Python, Go, SQL, Javascript, Java, C
- **ML/AI**: Mathematical Statistics, PyTorch, Reinforcement Learning, Natural Language Processing, Generative AI