Anthony Liu

Computer Science & Engineering
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(updated Oct 2023)

Education

09/2019 – present *Ann Arbor, MI*	**University of Michigan (CSE)** PhD in Computer Science Advisor: Honglak Lee
09/2015 – 05/2019 *Ann Arbor, MI*	**University of Michigan** BSE in Computer Science Minor in Mathematics GPA: 3.93/4.0 Awards: University Honors James B. Angell Scholar

Professional Experience

06/2023 – 9/2023 *Seattle, WA*	**Amazon, Applied Science Intern** Research on compositional task generalization with low rank adapters (LoRA) in large language models (LLMs).
06/2022 – 12/2022 *Ann Arbor, MI*	**LG AI Research, Research Intern** Research on compositional task generalization in reinforcement learning with language. Developing algorithms for improving reinforcment learning with pretrained large language models.
05/2018 – 08/2018 *New York City, NY*	**Bloomberg L.P. Data Science Intern** Implemented SOTA active learning algorithms in a framework for various ML teams in Bloomberg.

Publications

Conference Papers (C)

C.7   Sohn, S.*, Lyu, Y.*, **Liu, A.Z.**, Logeswaran, L., Kim, D.K., Shim, D., Lee, H. (2023) TOD-Flow: Modeling the Structure of Task-Oriented Dialogues **ICML MFPL Workshop**.

C.6   **Liu, A.Z.**, Kim, D.K., Sohn, S., Lee, H. (2023) Learning Higher Order Skills that Efficiently Compose **ICML MFPL Workshop**.

C.5   **Liu, A.Z.**, Logeswaran, L., Sohn, S., Lee, H. (2022) VP^2: Visually Prompted Language Models for Planning **EMNLP 2023**, Singapore. Dec 2023.

C.4   **Liu, A.Z.***, Sohn, S.*, Qazwini, M., Lee, H. (2022) Learning Parameterized Task Structure for Generalization to Unseen Entities **AAAI 2022**. *Oral presentation.*

C.3 Lee, K. H., Fischer, I., **Liu, A.Z.**, Guo, Y., Lee, H., Canny, J., Guadarrama, S. (2020) Predictive Information Accelerates Learning in RL. <u>**NeurIPS 2020**</u>, Vancouver, Canada.

C.2 Ramesh, D., **Liu, A.Z.**, Song, J., Waytowich, N., Lasecki, W.S. (2020) Yesterday's Reward is Today's Punishment: Contrast Effects in Human Feedback to Reinforcement Learning Agents <u>**AAMAS 2020**</u>, Auckland, New Zealand. May 2020. <u>**Best Student Paper**</u>

C.1 **Liu, A.Z.**, Guerra, S., Fung, I., Matute, G., Kamar, E., Lasecki, W.S. (2020) Towards Hybrid Human-AI Workflows for Unknown Unknown Detection <u>**WWW'20**</u>, Taipei, Taiwan. April 20–24. *Oral presentation.*

Awards

10/2017 **Finalist in the University of Michigan's Campus of the Future Design Competition**
Winners received \$25,000 in funding. Won finalist in the competition (**Top 5 of 50** teams). The only only-undergraduate team in the Top 5.

Teaching

2017 – 2018 **Teaching Assistant**
University of Michigan EECS 482 (Introduction to Operating Systems). EECS 492 (Introduction to Artificial Intelligence).
Taught discussion, helped draft homework and exams, held office hours. Q. Explained the material clearly: **4.8/5.0** (College median: 4.5/5.0)

2020 Fall – **Graduate Student Instructor**
2021 Winter EECS 545 (Machine Learning). EECS 376 (Introduction to Theoretical Computer Science).
University of Michigan Taught discussion, helped draft homework and exams, held office hours, managed undergraduate instructors and graders for homework creation and grading.