Pankayaraj Pathmanathan

Curriculum Vitae

Website | p.pankayaraj.gmail.com | LinkedIn | Github | Full Resume

WORK EXPERIENCE (SELECTED)

CURRENT, FROM SEPT 2022 (FULL TIME)

Research Assistant, Teaching Assistant
University of Maryland College Park

During this time, I primarily worked on LLM poisoning attacks, including RLHF poisoning, backdoor poisoning, and copyright poisoning. These works have been **published on AAAI main conference and Neurip, ICML 2024 workshops** and are under review for ICLR, ACL 2025.

FEB 2022 – AUG 2022 (FULL TIME)

Research Engineer
Singapore Management University

During this time, I had worked on constraint reinforcement learning methods that exploit the hierarchical reinforcement learning paradigm to better satisfy long horizon constraints in an effective manner. This work was **published at AAAI 2023**

AUSGUST 2020 – AUGUST 2021 (FULL TIME)

Research Assistant + Collaborator
SLTC, QBITS Lab + Flowers Laboratory, ENSTA Paris

During this time, I had worked on mitigating catastrophic forgetting in continual reinforcement learning with the use of curisoity. This work was **published at Cognitive Computational Journal 2023**

FEB 2019 – AUGUST 2019 (FULL TIME)

Research Intern
SLTC, QBITS Lab

This was my undergraduate research internship during which I had worked on multi agent multi arm bandit algorithims. These works were **published at IEEE CDC 2020 and European Control Conference 2020**

PUBLICATIONS (SELECTED)

Pankayaraj P, Chakraborty, S., Liu, X., Liang, Y., Huang, F. (2024). Is poisoning a real threat to LLM alignment? maybe more so than you think, In [Poster], In 39th ***AAAI - AIA*** Conference on Artificial Intelligence Philadelphia, Pennsylvania, USA

Pankayaraj P, Varakantham, P. (2022). Constrained reinforcement learning in hard exploration problems [Poster], In 37th ***AAAI*** Conference on Artificial Intelligence Washington, D.C. USA

Pankayraj P, Rodríguez, N. D., Ser, J. D. (2023). Using curiosity for an even representation of tasks in continual offline reinforcement learning, In ***Cognitive Computation*** Journal 2023

Panaitescu-Liess, M.-A., Che, Z., An, B., Xu, Y., **Pankayaraj P**, Chakraborty, S., Zhu, S., Goldstein, T., Huang, F. (2024). Can watermarking large language models prevent copyrighted text generation and hide training data?, In 39th ***AAAI*** Conference on Artificial Intelligence Philadelphia, Pennsylvania, USA

Pankayaraj. P, Maithripala, D. H. S. (2020) A decentralized communication policy for multi agent multi armed bandit problems [Presented], In ***European Control Conference*** 2020, Saint Petersburg, Russia

Pankayaraj P, Maithripala, D. H. S., Berg, J. M. (2020). A decentralized policy with logarithmic regret for a class of multi-agent multi-armed bandit problems with option unavailability constraints and stochastic communication protocols [Presented], In 59th ***IEEE Conference on Decision*** and Control, Jeju Island, Republic of Korea

EDUCATION

CURRENT	**PhD computer science** ADVISOR: FURONG HUANG University of Maryland College Park.
2015-2020	**BSc Computer Science** UNIVERSITY OF PERADENIYA, SRI LANKA

AWARDS

2022-2024	**Dean's Fellowship** *University of Maryland*
2024	**Best Paper Award** *Neurips AdvML-Frontiers*
2020	**Best Paper Award** *ESCaPe 2020, Symposium, Sri Lanka*

REFERENCES

NAME	**Prof. Furong Huang**
EMPLOYER	University of Maryland College Park
NAME	**Prof. Pradeep Varakantham**
EMPLOYER	Singapore Management University

WORKSHOPS (SELECTED)

Pankayaraj P, Sehwag, U. M., Panaitescu-Liess, M.-A., Huang, F. (2024a). Advbdgen: Adversarially fortified prompt-specific fuzzy backdoor generator against llm alignment , in the ***Neurips*** Safe Generative AI Workshop 2024

Panaitescu-Liess, M.-A., **Pankayaraj P**, Y. K., Che, Z., An, B., Zhu, S., Agrawal, A., Huang, F. (2024). Poisonedparrot: Subtle data poisoning attacks to elicit copyright-infringing content from large language models , in the ***Neurips*** Safe Generative AI Workshop 2024

Panaitescu-Liess, M.-A., Che, Z., An, B., Xu, Y., **Pankayaraj P**, Chakraborty, S., Zhu, S., Goldstein, T., Huang, F. (2024). Can watermarking large language models prevent copyrighted text generation and hide training data?, In [***NeurIPS*** ***Best Paper***] 2024 Workshop AdvML-Frontiers

Pankayaraj P, Sumanasekera, Y., Samarasinghe, C., Elkaduwe, D., Jayasinghe, U.,Maithripala, D. H. S. (2020). Multi-agent reinforcement learning in sparsely connected cooperative environments[***Best Research Paper***], in ESCaPe 2020, Sri Lanka.