Licheng Luo

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EDUCATION

University of Virginia — Charlottesville, VA
Master of Science in Computer Science — *August 2023 - Present*
- GPA: 4.0
- Advisor: Shangtong Zhang

Huazhong University of Science & Technology — Wuhan, Hubei
Honour Bachelor of Science in Electronic Engineering — *August 2019 - June 2023*
- GPA: 3.78 with Outstanding Graduate Honour
- Advisor: Xin Yang

RESEARCH INTERESTS

Reinforcement Learning; Robust Reinforcement Learning; Bi-level Optimization & Analysis;
All kinds of Machine Learning Applications that benefit humans
Generally Speaking: Prove first, then implement; avoid random combinations

RESEARCH EXPERIENCE

Robust Markov Decision Processes with Transition Gradient Theorem — 1/2024 – Present
Advised by Prof. Shangtong Zhang — *Charlottesville, VA*
- Proved the equivalence between finding the optimal adversary and finding the optimal policy in a regular MDP
- Proved the belman contraction of the optimal adversary, which shows the generated adversary will be converge to a fixed points
- Show the Markov optimality of this two player problem
- Propose the transition gradient theorem through which we can get the transition that minimizes the culmulated rewards

Reinforcement Learning with non-human feedback — 11/2023 – 3/2024
Advised by Prof Chen-Yu Wei — *Charlottesville, VA*
- Designed a predefined reward model to take place of reward model in RLHF
- Implemented this idea by TRL framework
- You can find Report **here**, the similar idea was published by DeepMind Reseach, you can find their work **here**

Volunteer Position w/ Supervisor and Hours — 9/2023 – 12/2023
Company/Organization Name — *123 Volunteer Rd., Town, ST*
Supervisor: Mr. Volunteer Person (123-456-7890, may/may not contact) — Hours per week: 5
- List your Duties, Accomplishments, and Related Skills

PUBLICATIONS & WORKING MANUSCRIPTS

Name, Your, Co-author, Your. 2023. *Title of Your Illustrious Professional Publication Here.* Journal Name Here, 123, 45

Name, Your, Co-author, Your, Other Co-author, Your, et al. 2023. *Other Title of Publication Here.* Other Journal Name Here, 678, 90

HONORS & COMPETITION

Organization Name: Affiliation/Role
Another Organization Name: Affiliation/Role

Skills

Enter job-related honors, awards, leadership activities, skills (such as computer software proficiency or typing speed) or any other information requested by a specific job announcement.