

Matin Aghaei

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HomePage | Linkdin | GitHub | Google Scholar

RESEARCH INTERESTS

LLM Agents | Reinforcement Learning | Embodied AI | Quantitative Trading | Optimization

EDUCATION

Master's in Computer Science

Simon Fraser University

- GPA: 3.5 /4

Sep. 2022 – Present

Burnaby, BC, Canada

Bachelor's in Computer Engineering

Amirkabir University of Technology

- GPA: 18.33 /20

Sep. 2017 – Apr. 2022

Tehran, Iran

RESEARCH EXPERIENCE

Machine Learning Researcher

Noah's Ark Lab

- Developing LLM agents in the Embodied AI setting

May. 2024 – Present

Toronto, ON, Canada

Graduate Research Assistant

Simon Fraser University

- Proved convergence guarantees for Policy Gradient algorithms
- Developed practical Bandit/RL algorithms with entropy regularization and linear approximation

Jan. 2023 – Present

Burnaby, BC, Canada

Undergraduate Research Assistant

Amirkabir University of Technology

- Implemented state-of-the-art Deep RL algorithms
- Compared Deep RL algorithms for stock trading [code]

Mar. 2021 – Apr. 2022

Tehran, Iran

PUBLICATIONS

- “Towards Principled, Practical Policy Gradient for Bandits and Tabular MDPs” [PDF], Michael Lu, **Matin Aghaei**, Anant Raj, Sharan Vaswani. Reinforcement Learning Conference, 2024.
- “Practical Principled Policy Optimization for Finite MDPs” [PDF], Michael Lu, **Matin Aghaei**, Anant Raj, Sharan Vaswani. Optimization for Machine Learning, NeurIPS, 2023 (**Oral Presentation**).

HONORS & AWARDS

- Paper accepted for an oral presentation (**top-5% contribution**) in NeurIPS OPT Workshop, 2023
- Elected as the Educational Manager of Students' Scientific Chapter of Computer Engineering at Amirkabir University of Technology, 2019
- Ranked **top 2%** among more than 150,000 students in the Iranian University Entrance Exam in Engineering and Applied Mathematics, 2017
- Advanced to the 3rd stage of the Iranian National Olympiad in Informatics (**Only 80 students** reached this stage), 2015
- Qualified as a member of the National Organization for Development of Exceptional Talents, 2010

SKILLS

Programming Languages: Python, Java, C, C++, MATLAB, VHDL, SQL, JavaScript

Developer Tools: Git, Numpy, Scipy, TensorFlow, PyTorch, Pandas, Matplotlib