Mehrdad Moghimi

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Summary

PhD candidate in Reinforcement Learning with a focus on risk-sensitive methods and robust decision-making in both online and offline settings. Experienced with PyTorch and JAX, with peer-reviewed research published at top machine learning venues.

Education

York University — Toronto, Canada
Doctor of Philosophy, Applied Mathematics — Sep. 2021 – Present

- Supervisor: Prof. Hyejin Ku
- Subject: Reinforcement Learning, Machine Learning, Finance

Sharif University of Technology — Tehran, Iran
Master of Business Administration, Finance — Sep. 2018 – Sep. 2021

- GPA: 18.62/20
- Supervisor: Prof. Hamid Arian
- Subject: Machine Learning, Finance

Sharif University of Technology — Tehran, Iran
Bachelor of Science, Computer Science — Sep. 2014 – Sep. 2018

- GPA: 18.71/20 (**Ranked 1st**)

Academic Research Experience

Research Assistant — Toronto, Canada
York University, Toronto, ON — Sep. 2021 – Present

- Working on Risk-sensitive Reinforcement Learning under the supervision of Prof. Hyejin Ku

Research Assistant — Tehran, Iran
RiskLab Middle East, Tehran, Iran — Sep. 2019 – Aug. 2021

- Conducted research projects under the supervision of Prof. Hamid Arian about the applications of Artificial Intelligence in Finance.
- The topics included applications of various machine learning models such as Variational Auto-Encoders and Deep Neural Networks for Risk Management and Portfolio Optimization.

Research Assistant — Tehran, Iran
Image Processing Lab, Sharif University of Technology, Tehran, Iran — Jan. 2018 – Aug. 2018

Publications

- **M. Moghimi**, H. Ku, "Risk-sensitive Actor-Critic with Static Spectral Risk Measures for Online and Offline Reinforcement Learning", Under review (Link)
- **M. Moghimi**, H. Ku, "Beyond CVaR: Leveraging Static Spectral Risk Measures for Enhanced Decision-Making in Distributional Reinforcement Learning", Published at ***ICML 2025*** (Link)
- H. Arian, **M. Moghimi**, E. Tabatabaei, and S. Zamani, "Encoded Value-at-Risk: A machine learning approach for portfolio risk measurement", Published at ***Mathematics and Computers in Simulation, 2022*** (Link)

Work Experience

Model Validation Intern — Sep. 2022 - Dec 2022
Sun Life Financial, Toronto, Canada

- Validated risk models for the Model Validation Team

Honours and Awards

- **Exceptional Talents Scholarship**, Accepted as a talented student for graduate studies in Sharif University of Technology without participating in the national university entrance exam, Fall 2018
- **Ranked 1st**, Achieving the highest GPA among all undergraduate students of Computer Science, Class of 2018

Technical Skills

- **Languages:** Python, R, MATLAB, Java, JavaScript
- **Libraries/Frameworks:** PyTorch, JAX, NumPy, pandas
- **Tools:** Git, Docker, LaTeX, Linux