Aida Afshar

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Curriculum Vitae

Research Interests

- **Sequential Decision Making**
- **Reinforcement Learning**
- **Foundation Models**

Education

Boston University — Boston, MA, USA
PhD - Computing & Data Science — 2023–current

Sharif University of Technology — Tehran, Iran
Bachelor of Science — 2018–2023

- Major: Applied Mathematics
- Minor: Computer Science

Research Experience

Learning rate-free Reinforcement Learning with Model Selection — Boston, MA
TTIC 2024 Workshop on Adaptive Learning in Complex Environments — Spring 2024

- Short version of the work is accepted to the RLC 2024 Workshop on Failure Modes of Sequential Decision-Making in Practice
- Link to paper preprint
- Link to GitHub repo

DeLF: Designing Learning Environments with Foundation Models — Boston, MA
AAAI 2024 Workshop on Synergy of Reinforcement Learning and Large Language Models — Fall 2023

- Link to paper preprint
- Link to GitHub repo

A Reinforcement Learning Approach to Lightning Network Fee Policy — Tehran, Iran
Bachelor Thesis at Sharif University of Technology — Fall 2021–Fall 2022

- Link to paper preprint
- Link to GitHub repo

Reward Design of Virtual Biomechanical Model — Espoo, Finland
Research Internship at Aalto University — August 2023

- Link to video demos
- Link to project presentaion slides

Hierarchical Potential-based Reward Shaping for highway environment Vienna, Austria
Research Internship at Vienna University of Technology (TU Wien) Summer 2022

- Link to HPRS GitHub repo
- Link to HPRS paper preprint

Awards

- Srinivasa Krishnamurthy PhD Fellowship Fall 2023
  - College of Engineering, Boston University
- Boston University Distiguished Computer Engineering Fellowship Fall 2023
  - Department of Electrical and Computer Engineering, Boston University
- Third place in !Optimizer Competition of SOAL Optimization Lab Summer 2021
  - Department of Mathematical Sciences, Sharif University of Technology

Skills

- **Programming:**
  1. Julia
  2. Python
  3. Java
  4. C++
  5. Matlab
- **ML:**
  1. PyTorch
  2. TensorFlow
  3. Keras
- **Optimization:**
  1. JuMP
  2. MathOptInterface
  3. CVXPY

Relevant Courses

1. Algorithmic Game Theory
2. Automata Theory
3. Machine Learning Theory
4. Advanced Programming
5. Data Structures

1. Advanced Linear Algebra
2. Convex Optimization
3. Semidefinite Programming
4. Stochastic Processes
5. Bayesian Statistics

Languages

- **English:** Proficient (TOEFL iBT: 107/120)
- **Persian:** Native

References

References are available upon request.