Parand Alizadeh Alamdari

EDUCATION

• University of Toronto, Toronto, Canada

2020 - Present

Website: https://praal.github.io Email: parand@cs.toronto.edu

Affiliated with Vector Institute for Artificial Intelligence Ph.D. in Computer Science, advisor: Prof. Sheila McIlraith

• Sharif University of Technology, Tehran, Iran

2015 - 2020

B.Sc. in Computer Engineering, Summa Cum Laude

Publications

- Parand A. Alamdari, Toryn Klassen, Elliot Creager, and Sheila McIlraith. Remembering to Be Fair: On Non-Markovian Fairness in Sequential Decision Making. NeurIPS Workshop on Algorithmic Fairness through the Lens of Time, 2023.
- Toryn Klassen, Parand A. Alamdari, and Sheila McIlraith. Epistemic Side Effects: An AI Safety Problem. In Proceedings of the International Conference on Autonomous Agents and Multiagent Systems (AAMAS), 2023.
- Toryn Klassen, Parand Alizadeh Alamdari, and Sheila McIlraith. Epistemic Side Effects and Avoiding Them (Sometimes). NeurIPS Workshop on ML Safety, 2022.
- Parand Alizadeh Alamdari, Toryn Q. Klassen, Rodrigo Toro Icarte, and Sheila A. McIlraith. Be Considerate: Avoiding Negative Side Effects in Reinforcement Learning. In Proceedings of the International Conference on Autonomous Agents and Multiagent Systems (AAMAS), 2022.
- Parand Alizadeh Alamdari, Toryn Klassen, Rodrigo Toro Icarte, and Sheila McIlraith. Avoiding Negative Side Effects by Considering Others. NeurIPS Workshop on Safe and Robust Control of Uncertain Systems, 2021.
- Parand Alizadeh Alamdari, Guy Avni, Thomas A Henzinger, and Anna Lukina. Formal Methods with a Touch of Magic. In *Proceedings of the 20th Conference on Formal Methods in Computer-Aided Design*, 2020.

RESEARCH EXPERIENCE

• Research Assistant at University of Toronto and Vector Institue

Sep 2020 – Present

Supervisor: Sheila McIlraith

Developing techniques to characterize and build AI technologies that are properly aligned with human values.

• Research Assistant at Sharif University of Technology

Sep 2019 - July 2020

Supervisor: Mahdieh Soleymani Baghshah

Designed and trained a graph representation model using graph neural networks and clustering techniques.

• Research Intern at IST Austria in Henzinger Group

 $Summer\ 2019$

Supervisors: Thomas Henzinger and Guy Avni

Designed and implemented a controller which is provably correct and efficient, with explainable decisions using an intermediate concise model to approximates the neural network.

• Research Intern at EPFL in DIAS Lab

 $Summer\ 2018$

Supervisors: Anastasia Ailamaki and Eleni Tzirita Zacharatou

Designed a tree-based data structure and a packing algorithm for indexing spatial data with several categories.

• Research Intern at EPFL in DATA Lab

Summer 2017

Supervisors: Christoph Koch and Amir Shaikhha

Redesigned and optimized an SQL query compiler DBToaster by introducing a new materialization algorithm.

Honors and Awards

• Recipient of **DeepMind Fellowship** for PhD studies.

2021 - 2025

• Recipient of General Motors Women in Science and Mathematics Award.

2023

- Recipient of Graduate Fellowship from Schwartz Reisman Institute for Technology and Society,
 University of Toronto.
- Recipient of AI Risk Analysis Award in NeurIPS Workshop for ML Safety.

2022

- Ranked 3^{rd} in cumulative GPA among all 150 students of Computer Engineering, 2015 beginners, Sharif University of Technology.
- Silver Medal in the 24th Iranian National Olympiad in Informatics (INOI).

2014

- Recipient of **Research Scholarship** from the Austrian Agency for International Cooperation in Education & Research (OeAD-GmbH).
- Ranked 150th in Iran's university entrance exam among over 181,000 participants.

2015

• 4th Place in the International RoboCup Competitions, Rescue Simulation League, as a member of Poseidon team, Eindhoven, Netherlands.

WORKING EXPERIENCE

- Data Scientist at Cafebazaar AI and Infrastructure Services, Tehran, Iran Feb 2020 Sep 2020
 - Led the development of the natural language processing part of text-to-speech and speech-to-text products for Persian language.
- Software Engineer at Cafebazaar, Tehran, Iran

June 2016 - March 2018

- Released an application recommender system for Cafébazaar android app store with 37 million users.
- o Designed and developed Big Data analytics tools for internal usage.

TEACHING EXPERIENCE

- Teaching Assistant
 - o Introduction to Artificial Intelligence (CSC384), University of Toronto Fall & Winter 2021 2023
 - o Knowledge Representation and Reasoning (CSC486/2502), University of Toronto

Fall 2021

o Design of Algorithms (Head TA), Sharif University of Technology

Fall 2019

 $\circ\,$ Data Mining (Graduate Course), Sharif University of Technology

Fall 2018

o Discrete Mathematics (Head TA), Sharif University of Technology

Winter 2017 - 2019

• Lecturer at Farzanegan 1 Highschool

Jun 2015 - Mar 2016

Taught Algorithms and Data Structures to students preparing for National Informatics Olympiad (INOI).

SKILLS

- Programming Languages: Python, Java, Scala, C/C++, and R.
- o Machine Learning Frameworks: PyTorch, Keras, Tensorflow, Scikit-learn, Pandas, NumPy.
- o Miscellaneous: Git, Bash, Scrum, Django framework, and LATEX.

Related Courses

- o Graduate Courses:
- Reinforcement Learning (A+)
- Trustworthy Machine Learning (A)

- AI Planning and Search (A+)

- Online Learning and Sequential Decision Theory (A+)
- Algorithms for Private Data Analysis (A+)
- Introduction to Causality (A)

- Undergraduate Courses:
- Machine Learning (A+)

- Deep Learning (A)

- Artificial Intelligence (A+)

- Social and Economic Networks (A+)