Mohammad Reza Samsami

M.Sc. Student · Information Technology Engineering

MILA - Quebec AI Institute / École de technologie supérieure (ÉTS)

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Research Interests

(Deep) Reinforcement Learning, Causality, Bayesian Machine Learning

Education

Montréal Institute of Learning Algorithms (MILA) / École de technologie supérieure *Montréal, Canada*

M.Sc. in Information Technology Engineering *2021 - 2023*

- Supervisors: Prof. Sheldon Andrews, Prof. Samira Ebrahimi Kahou

Sharif University of Technology *Tehran, Iran*

B.Sc. in Computer Science *2016 - 2021*

- **GPA: 18.18 / 20**

Honors & Grants

2015 **Silver Medal in Iranian National Olympiad in Informatics (INOI)**, Young Scholar Club
2019 **Granted the Travel and Conference Fund**, Association for Computational Linguistics
2016 **Ranked Top 0.3% in Iran's Universities Entrance Exam**,
2015 **Fellowship**, Iranian National Elites Foundation
2019 **Fellowship**, Association for Computational Linguistics

Publications

F. Hosseini, H. Fooladi, **M. R. Samsami**. 2019. Recognizing arrow of time in the short stories. WiNLP at ACL.

M. R. Samsami, H. Alimadad. 2020. Distributed Deep Reinforcement Learning: An Overview. Preprint.

Research Experience

Ecole polytechnique fédérale de Lausanne (EPFL)

Supervisors: Dr. Saber SalehKaleybar (Sharif) and Dr. Alexandre Alahi (EPFL) *2020 - 2021*

- Research Intern, Project: Causal Imitative Models for Autonomous Driving

Sharif University of Technology

Supervisor: Dr. Saber SalehKaleybar *2019 - 2021*

- Research Assistant

Shenakht Pajouh

Project Manager: Hosein Fooladi *2018 - 2019*

- Researcher, Paper: Recognizing arrow of time in the short stories

Professional and Work Experience

2021 **Data Scientist**, MetoData
2020-2021 **Scientific Collaborator**, University of Essex
2017-2020 **Researcher and Program Manager**, Shenakht Pajouh

Teaching Experience

2016 - 2019	**Algorithm Design and Programming for Olympiad**, Instructor	*Karaj, Iran*
2019 - 2021	**Linear Programming, Information Theory**, Teaching Assistant at Sharif University	*Tehran, Iran*

Skills

Machine Learning and Data Analytics: TensorFlow, Keras, PyTorch. Familiar with Scikit-Learn, Spark, Pandas.

Reinforcement Learning Toolkits: OpenAI Gym, PHYRE, CARLA Simulator.

Programming Languages: C++, C, Python, Java. Worked with MATLAB, and R.

IDE and Editors: LaTeX, Office, PyCharm, Jupyter, Vim, Code::Blocks, RStudio, Eclipse.

Software Engineering: OOP, Functional Programming, Git.

Selected Projects and Presentations

Causal Imitative Models for Autonomous Driving, EPFL Internship, *Paper in progress*

Crypto-Trading with Deep Reinforcement Learning, MetoData Company

Distributional Reinforcement Learning, Reinforcement Learning Course Project

Causal Reinforcement Learning, Causal Inference Course Project

An Analysis of Convex Optimization Algorithms, Convex Optimization Course Project

Language Modeling on Gutenberg with TensorFlow Keras, Shenakht Pajouh Company

Selected Courses

Graduate Level Coursework: Reinforcement Learning, Causal Inference, Convex Optimization, Information Theory, Game Theory, Distributed Systems

Undergraduate Coursework: Statistical Learning, Stochastic Processes, Probability Theory, Combinatorial Optimization, Linear Optimization, Theory of Computation, Mathematical Logic

Extracurricular Activities

2020-Pres.	**Sharif Causal AI Journal Club**, Member	*Sharif Uni.*
2017-2019	**Sharif Cognitive Science Community (Shenasa)**, Founding Member of the Central Council	*Sharif Uni.*
2017-2018	**Student's Scientific Association of the Department**, Member of Central Council	*Sharif Uni.*
2017	**Sharif Data Science Conference**, Co-Organizer	*Sharif Uni.*