

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

M. R. Samsami, M. Bahari, S. Salehkaleybar, A. Alahi. 2021. Causal Imitative Models for Autonomous Driving. Preprint.

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, Paper: 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
2019 - 2021 **Linear Programming, Information Theory**, Teaching Assistant at Sharif University

Karaj, Iran
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

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

Reinforcement Learning, Causal Inference, Probabilistic Graphical Models, Convex Optimization, Information Theory, Game Theory, Statistical Learning, Distributed Systems, Stochastic Processes

Languages

Farsi: Native

English: **Fluent (TOEFL: 106)**

Arabic: Familiar

French: Familiar

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.