# Mohammad Reza Samsami

### B.Sc. Student · Computer Science

Sharif University of Technology, Tehran, Iran

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| Education  |                                |
|--|--------------------------------|
| Sharif University of Technology  B.Sc. IN COMPUTER SCIENCE  • GPA: 18.18 / 20, Research advisor: Dr. Saber SalehKaleybar   | Tehran, Iran<br>2016 - present |
| <ul> <li>Shahid Soltani</li> <li>DIPLOMA IN PHYSICS AND MATHEMATICS</li> <li>GPA: 19.29 / 20, National organization for the development of exceptional talents</li> </ul>  | Karaj, Iran<br>2009 - 2016     |
| Honors & Grants  |                                |
| <ul> <li>Silver Medal in Iranian National Olympiad in Informatics, Young Scholar Club</li> <li>Granted the Travel and Conference Fund, Association for Computational Linguistics</li> <li>Ranked Top 0.3% in Iran's Universities Entrance Exam,</li> <li>Pres.</li> <li>Membership, Iranian National Elites Foundation</li> <li>Membership, Association for Computational Linguistics</li> </ul> |                                |
| Publications   |                                |
| F. Hosseini, H. Fooladi, M. R. Samsami. 2019. Recognizing arrow of time in the short stories. WiNLP at ACI   | - <b>.</b>                     |
| M. R. Samsami, H. Alimadad. 2020. Distributed Deep Reinforcement Learning: An Overview. Preprint.  |                                |
| Professional and Work Experience   |                                |
| <ul> <li>2021-Pres. Data Scientist, MetoData</li> <li>2020-Pres. Scientific Collaborator, University of Essex</li> <li>2017-2020 Researcher and Program Manager, Shenakht Pajouh</li> </ul>  |                                |
| Research Experience  |                                |
| Ecole polytechnique fédérale de Lausanne (EPFL) SUPERVISORS: DR. SABER SALEHKALEYBAR (SHARIF) AND DR. ALEXANDRE ALAHI (EPFL) • Research Intern, Project: Causal imitation learning for self-driving cars   | 2020 - Present                 |
| Sharif University of Technology  SUPERVISOR: Dr. Saber SalehKaleybar  Research Assistant, Project: Physical reasoning with deep reinforcement learning   | 2019 - Present                 |
| Shenakht Pajouh PROJECT MANAGER: HOSEIN FOOLADI  Researcher, Paper: Recognizing arrow of time in the short stories   | 2018-2019                      |
| Teaching Experience  |                                |
| <ul> <li>2016 - 2019 Algorithm Design and Programming for Olympiad, Instructor</li> <li>2019 - 2020 Linear Programming, Information Theory, Teaching Assistant</li> </ul>  | Karaj, Iran<br>Tehran, Iran    |

Skills\_\_\_\_\_

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

Reinforcement Learning Toolkits: OpenAI Gym, PHYRE, Carla.

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

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

**Software Engineering**: OOP, Functional Programming, Git.

# Selected Projects and Presentations \_\_\_\_\_

**Causal Imitation Learning for Self-Driving Cars**, EPFL Internship, *Ongoing* 

Physical Reasoning with Reinforcement Learning, A work with Dr. SalehKaleybar, Ongoing

**Distributional Reinforcement Learning**, Reinforcement Learning Course Project

An Analysis of Convex Optimization Algorithms, Convex Optimization Course Project

OpenAl GPT language modeling on Gutenberg with TensorFlow Keras, Shenakht Pajouh Project

Talk on Bayesian Learning and Reasoning, Sharif University of Technology

## Selected Courses and Studies \_\_\_\_\_

#### GRADUATE LEVEL COURSEWORK

| Reinforcement Learning, Dr. Alishahi       | 19.5 / 20 |
|--|-----------|
| Game Theory, Dr. Alishahi                  | 18.9 / 20 |
| Causal Inference, Dr. SalehKaleybar        | 18.7/20   |
| Distributed Systems, Dr. SalehKaleybar     | 18.5/20   |
| Convex Optimization, Dr. Jafari Siavoshani | 18.4/20   |
| Information Theory, Dr. Jafari Siavoshani  | 17.4 / 20 |

#### Undergraduate Coursework

| Statistics and Applications, Dr. Mirsadeghi            | 20/20     |
|--|-----------|
| Combinatorial Optimization, Dr. Foroughmand, Dr. Alimi | 20/20     |
| Linear Optimization, Dr. Alimi                         | 20/20     |
| Stochastic Processes, Dr. Alishahi                     | 18.2 / 20 |
| Theory of Computation, Dr. Alimi                       | 18/20     |
| Probability and Applications, Dr. Khazaei              | 18.5 / 20 |
| Advanced Programming, Dr. Zarei                        | 20/20     |
| General French, Dr. Fahim-Kalam                        | 17.5 / 20 |

#### SELF-STUDY

Natural Language Processing, Stanford, Dr. Manning, Dr. Socher

Online Course

Bayesian Methods in Machine Learning, I organized a study group in the Sharif University

# Extracurricular Activities \_\_\_\_\_

| 2017      | Sharif Data Science Conference, Co-Organizer                                      | Tehran, Iran |
|-----------|---|--------------|
| 2017-2019 | Sharif Cognitive Science Community (Shenasa), Member of the First Central Council | Tehran, Iran |
| 2017-2018 | Student's Scientific Association of the Department, Member of Central Council     | Tehran, Iran |