Mohammad Saadati

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Education

Gwangju Institute of Science and Technology (GIST) Gwangju, South Korea
M.S. in Artificial Intelligence *Sep. 2025 - Present*
Advisor: *Prof. Sundong Kim*

University of Tehran Tehran, Iran
B.Sc. in Computer Engineering *Sep. 2019 - Jul. 2024*
Relevant Courses: *Reinforcement Learning(Master's course), Advanced Interactive Learning(Master's course), Artificial Intelligence, Data Mining(Master's course), Game Theory, Engineering Probability and Statistics, Data Structure and Algorithm, Discrete Mathematics, Advanced Programming, Operating Systems, Database Design, Software Engineering, Internet Engineering, Distributed Computing, Operational Research*

Research Interests

- Reinforcement Learning
- Machine Learning
- Data Science & Big Data
- Multi-Agent Systems & Robotics
- Generative AI (LLMs)
- Software Engineering

Research Experience

Graduate Research Assistant DataScience Lab, GIST, South Korea
Under the supervision of Prof. Sundong Kim *Sep. 2025 - Present*

- Topics: Abstraction and Reasoning Corpus, Reinforcement Learning, Large Language Models

Undergraduate Research Assistant University of Tehran, Iran
Under the supervision of Prof. Majid Nili *Jan. 2023 - Jul. 2024*

- Explored the application of **transfer learning** to improve the efficiency of **reinforcement learning** by leveraging **large language models**. The research focused on using these models to identify similarities and differences between previous knowledge and new tasks, facilitating more effective learning transfer. Experiments demonstrated that large language models could significantly reduce the learning time and enhance decision-making processes, leading to improved performance in reinforcement learning scenarios.

Undergraduate Research Assistant University of Tehran, Iran
Under the supervision of Prof. Azadeh Shakery *Jul. 2022 - Jun. 2023*

- Developed a **hate speech detection** model by integrating **GCN (Graph Convolutional Networks)** with **BERT**, utilizing a heterogeneous graph for document classification. The research, informed by a thorough literature review, successfully optimized graph relationships for improved accuracy.

Undergraduate Research Assistant University of Tehran, Iran
Under the supervision of Prof. Behnam Bahrak *Aug. 2021 - Dec. 2022*

- Created a hybrid **consensus protocol** combining **proof of stake (PoS)** and **proof of activity (PoA)**. This work, grounded in extensive study of similar protocols, effectively leveraged the benefits of both PoS and PoA.

Publications

- S. Kamali, S. Shabihi, M.T. Fakharian, A. Arbabi, P. Tajmehrabi, M. Saadati, & B. Bahrak (2023). **"RPoA: Redefined Proof of Activity"**. *Submitted to The Institution of Engineering and Technology (IET).*

Teaching Experience

University of Tehran

- **Teaching Assistant** Data Science - *Prof. B. Bahrak, Prof. Y. Yaghoobzadeh* Spring 2024
- **Teaching Assistant** Reinforcement Learning (Master's course) - *Prof. M. Nili* Fall 2023
- **Teaching Assistant** Artificial Intelligence - *Prof. Y. Yaghoobzadeh, Prof. H. Fadaei* Spring 2023, Fall 2023
- **Teaching Assistant** Data Mining (Master's course) - *Prof. A. Shakery* Spring 2023
- **Teaching Assistant** Operating Systems - *Prof. M. Kargahi* Fall 2022, Spring 2023, Fall 2023
- **Teaching Assistant** Discrete Mathematics - *Prof. S. Mohammadi* Spring 2022, Fall 2022, Spring 2023
- **Teaching Assistant** Engineering Probability and Statistics - *Prof. B. Bahrak* Fall 2022
- **Teaching Assistant** Introduction to Computing Systems and Programming - *Prof. H. Moradi* Fall 2020, Fall 2021

Work Experience

Aban Prime Co. Tehran, Iran

Software Engineer *Apr. 2025 - Aug. 2025*

- Contributed to a dynamic crypto exchange startup by taking on diverse responsibilities across backend development and process optimization. Developed a notification center using **ASP.NET, PostgreSQL, and unit testing** to enhance user engagement and streamline communication within the platform. Improved the IRR banking deposit process by leveraging **artificial intelligence (AI) with Django, Celery, Redis, and Docker** to simplify account charging for support teams. Additionally, automated banking information delivery for IRR and AED deposits to overcome various banking account limitations.

Pars Jahd Green Technologies Co. Tehran, Iran

Software Engineer *Mar. 2024 - Mar. 2025*

- As a back-end developer, I implemented a web-based platform for securely managing personal health records. Utilizing **Python** and the **Django** framework, I developed the core functionalities and advanced features, integrating **MySQL** and **PostgreSQL** databases. I also employed tools such as **Celery, unit testing, Docker, CI/CD pipelines,** and **OAuth** for secure authentication. My work ensures seamless data management, enhances doctor-patient interactions, and supports accurate diagnoses through comprehensive record-keeping. [Platform Website]

Honors & Awards

- Received Korean Government Scholarship, Gwangju Institute of Science and Technology (GIST) 2025
- Received scholarship, Supporter Foundation of the University of Tehran 2019
- Ranked Top 0.2% in Konkour, Iranian University Entrance Exam among 150666 participants 2019

Coursera Certifications

- Reinforcement Learning Specialization
- Natural Language Processing Specialization
- Applied Text Mining in Python
- Text Retrieval and Search Engines
- Text Mining and Analytics
- Machine Learning Specialization
- Deep Learning Specialization
- Mathematics for Machine Learning Specialization
- Statistical Inference
- Generative Adversarial Networks (GANs) Specialization
- Machine Learning Engineering for Production (MLOps) Specialization
- Practical Data Science on the AWS Cloud Specialization
- Google Data Analytics Professional Certificate

Professional Developments

Crystaline University of Tehran, Iran

A cryptocurrency Powered by a Redefined POA Protocol *Aug. 2021 - Sept. 2022*

- Developed as a proof of concept on pure Python, this **cryptocurrency** incorporates a newly defined **proof of activity (PoA)** as its primary **consensus protocol**. It was designed and researched by me and several other students at the University of Tehran.

Workshops

Teaching Assistance Training Nov. 2022

A three-hour workshop held by the School of Electrical and Computer Engineering, [Certificate] *University of Tehran*

Skills

Programming: Python, C++, C, C#, Java, Go, SQL, Verilog, R
Frameworks & Libraries: Django, ASP.NET, NumPy, Pandas, Scikit-Learn, TensorFlow, Keras, PyTorch, NLTK
Tools & DB: Git, LaTeX, Makefile, Jupyter, Docker, Kubernetes, Maven, JUnit, MySQL, PostgreSQL, MongoDB, Redis
Software Engineering: Design Patterns, Object-Oriented Design, Agile, Scrum, CI/CD
Web Development (Familiar with): HTML, CSS, JavaScript, Bootstrap, Tomcat, Spring, React
Operating System: Linux(Ubuntu), Windows
Languages: Persian(Native), English(Fluent) - IELTS Academic: Overall 6.5 [L:6, R:7, W:6.5, S:6] (Sep. 2023)
Interests & Hobbies: soccer, fitness, music, computer games, books.