

Ali Falahati

Tehran, Iran

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Personal Profile

Final year student majoring in Computer Science at the Sharif University of Technology towards becoming a real research scientist, not just a simple researcher.

I'm a passionate student and quantitative researcher, interested in Artificial Intelligence, Graph Machine Learning, and Networks Sciences. Bringing forth a motivated attitude and a variety of powerful skills achieved through practical experience in the industry and academia.

For more information regarding my research experiences, work, and projects please refer to my [website](#).

Research Interests

My main areas of interests include:

- Graph Neural Networks
- Health Care AI
- Computational Social Science

Education

Sharif University of Technology

Tehran, Iran

Bsc in Computer Science

Oct 2020 - Current

- GPA: 3.95/4 (US-Based) | 18.83/20 (IR-Based)
- Expected to graduate in Jul 2024
- **Courses:** Massive Data Analysis, Deep Learning, Machine Learning, Stochastic Processes, Networks Science, Statistical Learning, Computer Networks, Linear Algebra, Probability Theory, Statistics, Game Theory, Data Structures, Advanced Programming

Research Experience

California State University

California, United States

Remote Collaboration

Aug 2023 - Current

- Working on Application of Graph Machine Learning in Protein-Ligand Binding Free Energy Calculation under the supervision of Dr. Negin Forouzesh.
- Contributed new modules for extracting features from Proteins to Deepchem Library.

Max Planck Institute for Software Systems

Saarbrücken, Germany

Research Internship

Jun 2023 - Current

- Working under the supervision of Dr. Laurent Bindshaedler at DSG lab.
- Involved in designing a new watcher node that can detect anomalies in the chain via online machine learning. Our output and paper are due to be submitted by early December

Florida State University

Florida, United States

Research Internship (Remote)

May 2022 - Jul 2022

- Joined the Climate change and Water resources research team as their data scientist and machine learning engineer.
- Worked on multiple projects, automating computer software for water resources modeling and machine learning applications for complex natural and man-made systems.
- The projects sought to find cost-effective strategies for water quality improvement and flood mitigation using multi-objective optimization and prediction of harmful blooms in coastal water using various watershed and water body variables.
- **Technical Skills:** Python, PyTorch, NumPy, Matplotlib, Pandas, Scikit-learn, Streamlit, Git.

Sharif University of Technology

Tehran, Iran

Research Assistant

Oct 2022 - Feb 2023

- Worked with professor Iman Gholampour from the EE department at the Sharif University of Technology on Tehran Traffic data.
- Implemented various big data algorithms for the project such as Apriori, LSH, CF-ALS, HITS, SVD, and PIXIE.
- **Technical Skills:** Python, Spark, Hadoop, SQL, NumPy, Matplotlib, Pandas, Docker, Ubuntu Scripting, Git.

Sharif University of Technology

Tehran, Iran

Teaching Assistant

Apr 2022 - Current

- I was teaching assistant for multiple courses.
- **Courses:** Stochastic Processes, 2x Probability Theory, Probability and Statistics, Machine Learning, Introduction to Mathematical Thinking, Linear Algebra, Advanced Programming, Network, Data Structures

Industrial Experiences

Co-Founder

Kargo

Tehran, Iran

Dec 2021 - Aug 2022

- I co-founded Kargo, a startup that aimed to become the first group-lancing platform for AI and data science projects.
- Our platform provided a seamless experience for both companies and freelancers. We facilitated the entire project lifecycle, from scoping and planning to execution and delivery.
- Kargo was acquired by Hermes Capital.

Lead Data Scientist

Hermes Capital

Tehran, Iran

Aug 2022 - Feb 2023

- Hermes Capital is a fintech company based in Tehran working toward Algorithmic Trading and Machine Learning approaches in the Iranian Stock Market and Cryptocurrency Market.
- I worked as a Data Scientist exploring Reinforcement Learning Algorithms (Specifically DQN) and developed the infrastructure for trading in Python.
- Read and implemented various papers in Finance and Machine Learning.
- **Website:** <https://hermescapital.ir/>

Machine Learning Co-Instructor

Hermes AI Academy

Tehran, Iran

Summer 2022

- Hermes AI Academy is a branch of Hermes Capital with the sole aim of providing courses on various topics including Data Science and Machine Learning.
- I lectured 3 sessions on classic Machine Learning for over 70 students and created various course materials.
- **Website:** <https://hermesai.ir/>

Technical Skills

Programming Languages Python, Java, SQL, Matlab, R, Go

Python Libraries Tensorflow, PyTorch, PySpark, Sci-kit learn, PyG, Deepchem, Scipy, Statmodels, Pandas, Numpy, Matplotlib, Selenium.

Miscellaneous Spark, Hadoop, Linux, Shell (Bash/Zsh), LATEX(Overleaf/R Markdown), Docker, Microsoft Office, Firebase, Git.

Achievements & Awards

2019 **Elite**, Top 200 Among 160,000 Participants in Iran University Entrance Exam

Iran

2023 **Elite**, 5000€ Scholarship awarded for a summer internship at Max Planck Institute for Software Systems

Germany

References

Nasrin Alamdari

Florida State University, Assistant Professor

Florida, United States

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Laurent Bindschaedler

Max Planck Institute, Assistant Professor

Saarbrücken, Germany

- **Email:** laurent@binds.ch

Negin Forouzesh

California State University, Assistant Professor

California, United States

- **Email:** neginf@calstatela.edu

Laleh Arshadi

Sharif University of Technology, Assistant Professor

Tehran, Iran

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Languages

English Professional proficiency

Persian Native proficiency