Hooman Zolfaghari

Contact

Email: hoomanzolfaghari84@gmail.com
or hooman.zolfaghari84@sharif.edu

LinkedIn GitHub Website

Education

B.S in Computer Science at Sharif University of Technology

Courses of Interest Taken:
Machine learning, Statistical learning, Linear algebra, Stochastic Processes, Game Theory, Databases, Data structures and Algorithms, Advanced programming, Operating Systems, Computer Networks, Principles of computer systems, Numerical Analysis

Experience

Research Experience:

- Research in **Graph Machine Learning** and **Geometric Deep Learning** on Graph Classification, under supervision of Dr.A.Rafiey and Dr.A.Vaezi.
- Research Assistant in Machine Learning and Computational Neuroscience, focusing on Cortical Orientation Selectivity based on **Bayes-Markov models**, under supervision of Dr.H.Peyvandi.

Teaching Experience:

- Introduction to Machine Learning, Dr. A.Sharifi-Zarchi, Fall 2024
- Algorithmic Creativity and Programming in Python, Dr. A.Sharifi-Zarchi, Summer 2023
- Computer Networks, Dr. H.Peyvandi, Spring 2023
- Operating Systems, Dr. A.Vaezi, Spring 2023
- Data structures and Algorithms, Dr. H.Mehrabiun, Spring 2023
- Advanced Programming, Dr. H.Boomeri, Spring 2023

Industrial Experience:

- Software development, Mika Corporation
- Software development, Sharif Technology Center

Skills

- **Theory:** Machine Learning Theory, Probability Theory, Stochastic Processes, Geometric Deep Learning, Generative Deep Learning
- **Programming Languages:** Python, C++, Java, C#, SQL, Assembly
- **Frameworks and Libraries:** PyTorch, PyG (PyTorch Geometric), CuPy, JAX, NumPy, Pandas, SciPy, Scikit-learn, CVXOPT, ASP.NET Core
- **Tools:** Git, LaTeX, RabbitMQ, Docker
- **Techniques**: Machine Learning, Statistical Learning, Deep Learning, Reinforcement Learning, Generative AI
- **Methodologies:** Agile, Scrum, Event-driven Programming, Concurrent Programming, Microservices

Activities

- CS236: Deep Generative Models, Stanford
- CS224W: Machine Learning with Graphs, Stanford
- Attended Neuromatch academy Deep Learning course (Certificate)
- Implemented Machine learning models and Techniques (GitHub)
- Conducted workshops and TA classes at SUT
- Created exam questions and exercises for SUT students
- Neural Style Transfer project (GitHub)
- Implemented MCMC: Metropolis-Hastings algorithm (GitHub)
- Artificial Intelligence in Clinical Practice (Certificate)