

## Contact Information

**Email** – sepehrrezaee2002@gmail.com

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## Education

- 2021–2025 **Bachelor of Science in Computer Science**, *The National University of Iran, Tehran, Expected.*  
Focus: Deep Learning, Machine Learning, and AI Safety
- 2019–2021 **Math Diploma, GPA: 3.87/4 (19.37/20.0)**, *Allameh Tabatabaee (Advanced) High School, Tehran.*  
Specialization: Advanced studies in mathematics and sciences

## Publications

- 2024 “**Backdooring Out-of-Distribution Detection Methods: A Novel Attack Approach**”. Hossein Mirzaei, Moein Madadi, Zeinab Sadat Taghavi, **Sepehr Rezaee**, Mohammad Sabokrou. *Submitted to NeurIPS 2024.*
- 2024 “**Scanning Trojaned Models Using Out-of-Distribution Samples**”. Hossein Mirzaei, Ali Ansari, Bahar Dibaei Nia, Mojtaba Nafez, Moein Madadi, **Sepehr Rezaee**, Zeinab Sadat Taghavi, Arad Maleki, Kian Shamsaie, Mahdi Hajjalilue, Jafar Habibi, Mohammad Sabokrou, Mohammad Hossein Rohban. *Submitted to NeurIPS 2024.*
- 2024 “**Toward Robust Novelty Detection Under Style Shifts**”. Hossein Mirzaei, Mojtaba Nafez, Moein Madadi, Arad Maleki, Mahdi Hajjalilue, Zeinab Sadat Taghavi, **Sepehr Rezaee**, Ali Ansari, Bahar Dibaei Nia, Kian Shamsaie, Mohammadreza Salehi, Jafar Habibi, Mahdieh Soleymani Baghshah, Mohammad Sabokrou, Mohammad Hossein Rohban. *Submitted to NeurIPS 2024.*
- 2023 “**Comparison of pre-training and classification models for early detection of Alzheimer’s disease using magnetic resonance imaging**”. AH Karami, **S Rezaee**, E Mirzabeigi, K Parand. *Presented at the 8th International Conference on Combinatorics, Cryptography, Computer Science and Computation, Iran, 2023.*
- 2022 “**Unsupervised Algorithms: Clustering (with Implementation)**”. Kourosh Parand, **Sepehr Rezaee**, et al. *Chapter in the book Hierarchical Clustering Methods*, Aarvan Publications. *In Persian.*

## Professional Experience

- 2024–Present **Research Assistant**, *Robust and Interpretable Machine Learning Lab*, Sharif University of Technology, Tehran.  
◦ Research focuses on developing robust and interpretable machine learning models.
- 2021–Present **Research Assistant**, *Artificial Intelligence and Scientific Computing Lab*, Tehran.  
◦ Under the supervision of Prof. Parand, focused on modeling disease progression using differential equations and employing Physics-Informed Neural Networks (PINN).
- 2023–2024 **Deep Learning and Neuroscience Intern Researcher**, *Institute for Research in Fundamental Sciences (IPM)*, Tehran.  
◦ Conducted M/EEG data analysis using advanced deep-learning techniques under the supervision of Dr. Rezvani.
- 2023–2024 **Project Manager**, *NovaVira*, Tehran.  
◦ Managed a machine learning project, overseeing the development and implementation of algorithms and models.
- 2022 **System Engineer**, *Mohaymen ICT Company*, Tehran.  
◦ Designed and implemented system architecture for various ICT projects.

- 2022 **Process Developer**, *Mohaymen ICT Company*, Tehran.  
○ Developed and optimized business processes to enhance operational efficiency.
- 2021 **Software Quality Assurance Tester**, *VALMART (Online Exchange)*, Tehran.  
○ Conducted thorough testing of software applications to ensure quality and functionality.

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## Selected Courses

2021–Present **Courses.**

- **Foundations of Data Science** (20/20) (4/4) (1st rank)
- **Data Mining** (19.9/20) (4/4) (1st rank)
- **Advanced Data Mining** (18.5/20) (3.7/4) (1st rank)
- **Foundation of Numerical Analysis** (19.75/20) (3.95/4) (1st rank)
- **Non-Linear Optimization** (19.5/20) (3.9/4) (1st rank)
- **Partial Differential Equations** (20/20) (4/4) (1st rank)
- **Electromagnetics** (20/20) (4/4) (1st rank)
- **Neural Network** (18.5/20) (3.7/4) (3rd rank)
- **Foundation of Logic and Set Theory** (18.5/20) (3.7/4) (3rd rank)
- **Principles of Operating Systems** (18.16/20) (3.63/4) (2nd rank)
- **Foundations of Machine Learning** (18.5/20) (3.7/4) (2nd rank)
- **Elements of Probability** (17.5/20) (3.5/4) (4th rank)
- **Data Structures & Algorithms** (17.78/20) (3.56/4) (5th rank)

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## Awards & Honors

- 2023 **Best Ideator Award**, 7th National Young Scientists Festival. Awarded for innovative problem-solving in Computer Science.
- 2021 **Ranked among the top 0.5% (342)** of the 150,000 students who participated in the entrance exam.

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## Teaching Experience

2024–Present **Advanced Programming Head Teaching Assistant**, *The National University of Iran*, Tehran.

2023 **Data Mining and Analysis Head Teaching Assistant**, *The National University of Iran*, Tehran.

2022 **Basic Programming Teaching Assistant**, *The National University of Iran*, Tehran.

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## Extracurricular Activities

2022 - 2023 **Assistant Teacher and Mentor.**

- Application of Data Science and Artificial Intelligence in the Petrochemical Industry
- Application of Data Science and Artificial Intelligence in the Water Industry
- Application of Data Science and Artificial Intelligence in the Electricity Industry

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## Skills & Proficiencies

### Industry Knowledge.

- Deep Learning, Machine Learning, Image Processing, Data Science, LLM
- Computational Neuroscience, Software Engineering, Project Management, Teaching
- System Engineering, Version Control

### Tools & Technologies.

- Python (Programming Language), PyTorch, TensorFlow, JAX
- Scikit-Learn, Matplotlib, NumPy
- MNE-Python, NiPy, OpenCV, Git, Docker, Linux
- Django, Django REST Framework, C++, C (Programming Language)
- MATLAB, C#, Selenium, PostgreSQL, Bootstrap, NoSQL, MongoDB, Kotlin

### Interpersonal Skills.

- Problem Solving, Team Working

### **Languages.**

- Fluent in Persian: speaking, reading, and writing
- English: Professional working proficiency

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## **Licenses & Certifications**

- Mar 2024 **Large Language Models Hackathon.**
- Nov 2022 **Explainable Artificial Intelligence and its applications in Industry and Business**, Shahid Beheshti University.
- May 2022 **Deep Learning with PyTorch Workshop**, SciSchool.
- Aug 2021 **Maktabsharif Coding Bootcamp Python Back-End Developer.**

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## **Reference Contacts**

- Prof. Mohammad Hossein Rohban** – rohban@sharif.edu
- Prof. Mohammad Sabokrou** – sabokro@ipm.ir
- Prof. Kourosh Parand** – k\_parand@sbu.ac.ir