#### Seyyed Mohammad Masoud Parpanchi

Data scientist at Artificial Intelligence Department of <a href="SystemGroup">SystemGroup</a>, Vanak, Tehran, Iran.

Github | Linkedin | Kaggle

Email: masoudparpanchi@gmail.com Phone: +98-922-3896151

### EDUCATION

M.Sc. in Computer Engineering - Artificial Intelligence and Robotic,

Sep 2021 – Aug 2024

Department of Computer Engineering, Shahid Rajaee Teacher Training University

(SRTTU), Tehran, Iran.

M.Sc. Thesis: "Using convolutional neural network and neural graph network to

increase the accuracy of image classification"

**GPA:** 17.05 out of 20

**B.Sc.** in Computer Engineering - Software, Department of Computer Engineering, Imam Khomeini International University (IKIU), Qazvin, Iran.

Sep 2016 – Mar 2021

B.Sc. Thesis: "Cancer detection using synchrotron data and Machine Learning"

**GPA:** 15.80 out of 20

#### WORK EXPERIENCES

Data Scientist - SystemGroup: detailed info Jan 2022 - Present

Data Scientist - Hamtech: detailed info Jul 2020- Nov 2022

Junior Data Scientist - Shenasa: detailed info Oct 2019 - Jul 2020

Machine learning Intern – Shenasa: detailed info Jan 2019 – Sep 2019

# RESEARCH INTERESTS

- SLMs (Small language models) and LLMs ( Large Language models)
- Machine learning models on Edge devices
- Machine Learning

- Privacy in Machine Learning
- Machine learning models optimizations
- AI for healthcare

## HONORS AND AWARDS

**Top 1% in the Iranian university entrance exam:** Achieved top 1% ranking among 200,000 participants in the Iranian university entrance exam for a bachelor's degree in Mathematics.

Fall 2015

Achieved an 'A' grade in the following courses in Msc: Optimization, Computer Vision, Neural Networks, Machine Learning, Multi-Agent Systems,

2021-2024

Hardware in AI, and Evolutionary Computing.

Advanced ASR Data Collection and Model Development: Developed crawlers to collect approximately 4000 hours of audio data and trained an ASR model, open-sourced on GitHub (shenasa-ai/speech2text). +200 stars on GitHub.

Fall 2021

**Pioneering Persian ASR Model:** Created the best open-source Persian ASR model (2021), hosted on Hugging Face (<a href="masoudmzb/wav2vec2-xlsr-multilingual-53-fa">masoudmzb/wav2vec2-xlsr-multilingual-53-fa</a>) and GitHub (<a href="Hamtech-ai/wav2vec2-fa">Hamtech-ai/wav2vec2-fa</a>)

Fall 2021

*Kaggle Community Recognition:* Recognized as a <u>Notebook</u> and <u>Discussion</u> expert, contributing insights to the Kaggle community.

Summer 2020

#### Kaggle Competition Excellence:

Summer 2020

- Predict Future Sales: Ranked 1955/14937
- Categorical Feature Encoding Challenge: Ranked 109/1338
- University of Liverpool Ion Switching: Ranked 1013/2618
- Bengali.AI Handwritten Grapheme Classification: Ranked 1292/2059

*High-Efficiency RAG-Based Chatbot:* Designed a customer service chatbot for high concurrency, handling 12 simultaneous responses on a single 3090ti GPU.

Summer 2024

*Optimized Persian OCR for Multi-Platform Use:* Developed a lightweight Persian OCR system, optimized for efficient performance on both CPU and GPU setups.

Summer 2023

#### **PUBLICATIONS**

Seyyed Mohammad Masoud Parpanchi, A. Bosaghzadeh, "Enhance GNNs Image classification accuracy by setting node feature using CNNs" (In Progress).

Z. khiyali, Seyyed Mohammad Masoud Parpanchi, A. Bosaghzadeh, "A Comprehensive Analysis of Dropout and Fine-Tuning in CNN-Driven Graph Neural Networks" (In Progress).

# TEACHING EXPERIENCES

<b>Teacher Assistant of</b> "Machine Learning", Imam Khomeini International University, Qazvin, Iran.	Winter 2020
<b>Teacher Assistant of</b> "Machine Learning", Imam Khomeini International University, Qazvin, Iran.	Fall 2020
Mentor of "Machine learning summer internship: Text processing for hate- speech and Economical text analysis", Hamtech Company, Tehran, Iran.	Summer 2021
<b>Mentor of</b> "Machine learning summer internship: Cryptocurrencies prediction", Hamtech Company, Tehran, Iran.	Summer 2022

# Technical Skills

Machine learning

Pytorch, Keras, Langchain, Ollama, vllm, PaddlePaddle, huggingface, numpy, pandas, matplotlib, seaborn, NLP, Computer vision, Sklearn, plotly, OpenCV,

**Programming Languages** 

Expert in Python | Good in Javascript, java, Web Design and Programming: Nodejs.

Other Skills

Linux/Ubuntu, Kanban, Git, Gitlab, Rasa. Flask, Fastapi, Github, SQL/NoSQL database, Vector databases, Beautifulsoup, Selenium, Docker orchestration, Docker, RagBased Chatbots

# LANGUAGE SKILLS

English: Fluent | Persian: Native | Turkish: Familiar

#### REFRENCES

*Dr. M. Khaligh Razavi (My Manager at Hamtech):* Postdoc in Massachusetts institute of technology (MIT) USA 2017, .Ph.D. degree in Cognition and brain science, Cambridge , United Kingdom 2014.

S.MahdiRazavi@gmail.com

Scholar

*Dr. H. Nili (My Manager at SystemGroup):* Ph.D. degree in Electrical and Electronic Engineering, *University of Southampton*, United Kingdom, 2012.

hosseinni@systemgroup.net

*Dr. Ammar JalaliManesh (My Manager at Hamtech):* Ph.D. degree in Industrial Engineering, The Amirkabir University of Technology, Iran Tehran, 2015. Faculty member Iranian Research Institute for Information Science and Technology.

unes.jalali@gmail.com scholar

*Dr. A. Bosaghzadeh*(*My M.Sc. Supervisor*): Associate *Professor* of Computer Engineering, Ph.D. degree in Artificial intelligence, University of the Basque Country, Spain, 2014.

a.bosaghzadeh@sru.ac.ir scholar