# Ali Nabipour

#### **EXPERIENCE**

## Machine Learning Engineer

2022 - Present

FANAP Advanced Technology Lab (ZLab)

- · Persian Automatic Speech Recognition: Enhanced the Word/Character Error Rate of a Persian ASR system from 15 to 9 using language decoder models.
- · Content-based Music Recommender: Implemented a novel recommender system using waveform data exclusively, employing unsupervised contrastive learning.
- · Banking Conversational Chatbot: Boosted intent recognition module accuracy by 11% through the implementation of a Roberta classifier, replacing the classical model.
- · *Multi-purpose Generative Chatbot*: Developed entreprise chatbots using LLMs, solving hellucination with RAG and finetuning.

### Teaching and Research Assistant

2022 - 2024

University of Guilan

- · Designed/evaluated course projects, created educational videos, and guided students on assignments.
- · Developed unsupervised anomaly detection model for sperm morphology, published in a journal.

#### **EDUCATION**

Politecnico di Milano M.Sc. in Computer Science (Artificial Intelligence) — GPA: -	$2024 - { m Now} \ Milan, \ Italy$
University of Guilan  B.Sc. in Computer Engineering — GPA: 3.86/4	$2019-2023 \ Rasht, \ Guilan$

#### **PUBLICATIONS**

· Nabipour, A., Shams Nejati, M. J., Boreshban, Y., & Mirroshandel, S. A. (2024). Less-supervised learning with knowledge distillation for sperm morphology analysis. Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization. DOI — Code

#### **KEY SKILLS**

**Programming Languages** Python, C++, Java

AI Tools PyTorch, Huggingface, LangChain, OpenAI

**Deployment** AWS, Azure, Docker

**Development** PostgreSQL, MongoDB, Chroma, FastAPI, Git

Technical LLMs, PEFT, RAG, Computer Vision

#### ACHIEVEMENTS

- · Full Scholarship, B.Sc, University of Guilan
- · Member of Scientific Association of Computer Engineering, University of Guilan
- · Ranked 10th in Regional ACM/ICPC 2020 certificate
- · Natural Language Processing Specialization, Coursera, DeepLearning.AI. certificate
- · Introduction to Data Science in Python, Coursera, University of Michigan. certificate
- · Machine learning, Coursera, Andrew Ng. certificate