

MASOUD KHALILIAN

Machine Learning Engineer

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Experience

Machine Learning Engineer

Zirak

7/2025 – Present

Turin, Italy

- Developed LLM-powered meeting assistant with transcription, summarization, and **RAG** integration using **Electron, React, and Python (FastAPI)**
- Solved context-window hallucinations by implementing a recursive summarization pipeline, ensuring high fidelity and detail retention for extended meeting contexts (up to **60+ minutes**)

Lead Developer & Maintainer

Data Cleaner Assistant (Independent SaaS)

1/2025 – 7/2025

Turin, Italy

- Engineered a live, user-friendly SaaS tool that helps users clean and process Excel data using natural language, successfully eliminating **200+ hours** of manual data cleaning for end-users
- Architected and deployed **AWS EC2** backend with Route 53 and Caddy (auto-HTTPS) for secure authentication and LLM request handling in a hybrid local/cloud app

Senior Front End Developer

Dorfak Intelligence

1/2021 – 8/2022

Tehran, Iran

- Built a real-time **portfolio trading dashboard** capable of handling high-frequency stock market data streaming, delivering architecture optimizations that made the enterprise application **4x faster**
- Developed custom **D3.js** financial visualizations that improved data input efficiency and clarity by **10x**

Front End Developer

Wolfy-Agency

6/2020 – 12/2020

Tehran, Iran

- Delivered pixel-perfect responsive interfaces using **Tailwind CSS** and **Ant Design** for high-traffic client websites

Full-Stack Developer

Cadence Music Magazine

2/2018 – 1/2020

Tehran, Iran

- Built a full-stack **ASP.NET MVC** platform with **Razor** views to support a scalable content management system

Education

M.Sc. Data Science & Engineering

Politecnico di Torino

Expected 2026

Turin, Italy

Thesis: *Human-in-the-Loop LLM Systems for Intelligent Meeting Assistants*

B.Sc. Computer Software Engineering

Azad University

2018

Parand, Iran

Project: *Automated Proposal Acceptance System*

Summary

Machine learning engineer and full-stack developer with **6+ years** of experience building software. Proven track record of transitioning from senior front-end architecture to building specialized, high-impact LLM-powered data engineering tools and intelligent automation systems.

Technical Skills

Languages Python, JavaScript/TypeScript, SQL, C#, Java

AI & ML LLMs, PyTorch, RAG, LangGraph, LangChain, Scikit-learn

Web/App React, Node.js, ASP.NET Core, FastAPI, Electron, Tailwind, D3.js

Cloud/Tools AWS (EC2, Route 53), Git, Docker, MongoDB

Key Projects

Resource Constrained Semantic Segmentation for Waste Sorting

Politecnico di Torino

Turin, Italy

- Implemented Enet, BiSeNet, and ICNet for real-time image segmentation
- Applied knowledge distillation and model optimization (pruning, quantization)

Data Automation Tool in Big Ag

University of Kentucky

Lexington, KY, US

- Automated web scraping with Python/Selenium to extract entity data from Sayari Graph
- Developed ETL pipelines and robust data cleaning scripts in Python

Languages

English Fluent (TOEFL: 103)
S: 28, L: 28, R: 24, W: 23

Persian Native

Italian Beginner