

AMIR MOHAMMADIAN

Data Scientist | AI Engineer

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SUMMARY

Results-driven Data Scientist and AI Engineer with 5+ years of experience designing and deploying end-to-end machine learning systems across fintech, mobility, healthcare, and blockchain domains. Specialized in scalable data pipelines, NLP-based document intelligence, geospatial analytics, and predictive modeling on AWS and GCP. Proven track record of transforming raw data into production-grade ML solutions that power data-driven business decisions. Strong foundation in deep learning, computer vision, and LLM optimization.

EXPERIENCE

PYRITE RISK EXPERT | US, New Jersey | Remote

Jan 2025 – Present

Senior Data Scientist (Part-Time)

- Designed and integrated AI-powered tools leveraging NLP and ML for automated document preprocessing, analysis, and clustering of financial datasets
- Engineered scalable classification pipelines to organize financial and legal documents with minimal human intervention
- Conducted in-depth analysis of hedge fund datasets to extract strategic investment insights and identify behavioral patterns
- Applied advanced statistical and ML methodologies to uncover correlations and optimize data-driven predictive models
- Designed and implemented a Retrieval-Augmented Generation (RAG) system for intelligent querying, clustering, and retrieval of documents and structured data

MAPIN DATA | Turkey, Istanbul | Hybrid

Oct 2024 – Jan 2026

Senior Data Scientist

- Architected and deployed big data infrastructure on AWS and GCP to process billions of mobility records for large-scale location intelligence analytics
- Built scalable real-time and batch data pipelines for ingestion, transformation, and analysis of anonymized geospatial datasets
- Applied advanced clustering, spatial indexing, and geospatial analysis to evaluate commercial performance across diverse geographic regions
- Extracted actionable insights on customer behavior, footfall patterns, and catchment areas for retail and service-based businesses
- Delivered interactive geospatial visualizations, cluster analyses, and time-based movement trend reports to enable stakeholder decision-making

LAXCE | Turkey, Istanbul | Remote

Mar 2025 – May 2025

Full Stack Developer (Part-Time)

- Built an AI-powered recommendation engine to suggest tokens based on user behavior, market trends, and trading patterns using ML models
- Designed and developed a cross-chain cryptocurrency swap platform integrating major DEX aggregators for optimal routing and liquidity
- Implemented interactive analytics dashboards with real-time market insights, price movement tracking, and visual analytics tools

DEEP KNOWLEDGE GROUP | UK, London | Remote

Aug 2024 – Oct 2024

Senior Data Scientist

- Evaluated diverse regional and market datasets using data-driven methods to identify high-potential business growth opportunities
- Created impactful data visualizations and analytical reports to support evidence-based strategic decision-making

SCALE AI | US, San Francisco | Remote

May 2023 – Jul 2024

Data Scientist

- Annotated and curated large-scale training datasets to optimize large language model (LLM) performance and alignment
- Developed prompt engineering strategies and evaluation frameworks to systematically enhance LLM output quality

AIGOT | Italy, Pisa | Remote

May 2022 – May 2023

Data Scientist

- Developed machine learning models to predict stress levels from wearable sensor data with high accuracy
- Built REST APIs and a smartwatch application for real-time physiological data collection from wearable devices
- Integrated ChatGPT API to optimize user task descriptions and improve scheduling through intelligent NLP
- Performed feature engineering and data preprocessing pipelines to improve model reliability and generalization

FREELANCER |

Sep 2019 – Apr 2022

Data Scientist & ML Engineer

- Photo Generation: Developed Generative Adversarial Networks (GANs) with autoencoder modules for high-quality, realistic image synthesis from structured data
- Lung Cancer Detection: Built a Convolutional Neural Network (CNN) to classify lung cancer presence from MRI images with structured preprocessing pipelines
- Automated Trading: Engineered a fully automated cryptocurrency trading platform leveraging real-time market analytics and exchange APIs
- 3D Reconstruction: Applied OpenCV-based structure-from-motion techniques to reconstruct accurate 3D models from multi-angle photographs
- Smart Contracts: Collaborated with DeFi teams to design, build, and audit decentralized applications using Solidity and Web3 libraries

PUBLICATIONS & RESEARCH

IEEE UBMK 2025

Mohammadian, A. (2025). *A Recommender System for POI Business Classification Based on Dynamic and Socioeconomic Data*.

- Led end-to-end project development from data collection to model deployment
- Presented findings orally at IEEE UBMK 2025, Istanbul

TÜBİTAK — Data-Driven Decision Support System for HoReCa Sector

Role: *Data Specialist / Data Scientist*

- Developed hybrid recommendation and classification frameworks integrating structured and visual data
- Designed scalable data processing pipelines for large-scale geospatial and socioeconomic datasets
- Evaluated gradient boosting and deep learning architectures for large-scale classification problems
- Built classification models using vector embeddings extracted from images via vision-language models for enhanced feature representation

EDUCATION

AZAD UNIVERSITY | Tabriz, Iran

2015 – 2019

Bachelor of Computer Science

CERTIFICATES

Professional Certificate in Data Science — IBM, Coursera (2023–2024)

SKILLS

- **Machine Learning & AI:** Deep Learning, NLP, Computer Vision, Reinforcement Learning, LLMs, GANs, CNNs, Transformers
- **Data Engineering:** Spark, Kafka, Hadoop, ETL/ELT Pipelines, Real-Time & Batch Processing, Large-Scale Data Handling
- **Cloud Platforms:** AWS (S3, SageMaker, EC2), Google Cloud (BigQuery, Dataflow), Azure
- **Programming:** Python, SQL, JavaScript, Solidity, R
- **Frameworks & Libraries:** TensorFlow, PyTorch, Scikit-learn, XGBoost, LightGBM, CatBoost, OpenCV, Hugging Face
- **Visualization & Analytics:** Tableau, Power BI, Matplotlib, Seaborn, Plotly, Pandas, NumPy
- **Tools & Infrastructure:** Docker, Git, PostgreSQL, PostGIS, MongoDB, Redis, MLflow

LANGUAGES

English (Fluent) | **Turkish** (Fluent) | **Azerbaijani** (Native) | **Persian** (Native)