

# REZVAN SANGCHEMEH

Al Expert

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## ABOUT ME

Al Engineer and former CTO with 4+ years of experience in solving complex real-world problems through Al-powered solutions. Proven expertise in deep learning, backend systems, and end-to-end model deployment, with specialized focus on medical imaging, industrial anomaly detection, and time series forecasting. Skilled in leveraging Python, PyTorch, and FastAPI to deliver scalable and impactful AI applications in both startup and academic environments.

#### **EDUCATION**

Sep 2017 – Jan 2020

M.Sc. in Computer Engineering – Artificial Intelligence

Kharazmi University

·GPA: 18.72/20

·Thesis: Recognizing Bank Suspicious Loan Applicants Using Deep Learning

Sep 2010 - Aug 2013 Mazandaran University B.Sc. in Computer Engineering – Hardware

GPA: 15.80/20

Faculty of Science and Technology, Babol, Iran

## PROFESSIONAL EXPERIENCE

May 2022 - May 2025

#### **CTO - Hamoon Startup Company**

Led the full technical lifecycle of Al-powered product development for Education and finance Sari, Iran sectors, from concept to deployment.

> Architected and implemented robust, scalable backend systems using Django, FastAPI, PostgreSQL, and Redis to support advanced AI applications.

·Developed and deployed LLM-based assistants (Ollama) for internal operations, significantly enhancing team productivity and operational workflows.

·Managed and mentored a cross-functional team of 7 developers, fostering a highperformance environment and ensuring successful project deliveries.

May 2022 - May 2024

#### Al Consultant & Independent Projects

Remote

·Provided expert AI consulting services to various clients, specializing in custom deep learning solutions for industrial anomaly detection, and time series forecasting.

·Led end-to-end development of independent Al projects, including the design, training, and deployment of complex models to address specific business challenges.

·Utilized advanced techniques in computer vision, predictive analytics, and natural language processing to deliver tailored and impactful AI strategies.

May 2021 - May 2022 Qaemshahr, Iran

#### Al Team Lead - Subtek Company

·Directed computer vision projects including face recognition and anomaly detection ·Built deep learning pipelines with PyTorch and TensorFlow for industrial video analytics

·Integrated models into real-time systems using OpenCV and custom APIs

#### Lecturer - Adib University

- Taught undergraduate courses in Data Mining, Python Programming, and Introduction to Al
- Supervised student projects on applied machine learning

## **SKILLS**

- AI & Machine Learning: Deep Learning (PyTorch, TensorFlow, Keras, CNNs, RNNs, Transformers, Autoencoders, GANs), Machine Learning (Scikit-learn, Pandas, NumPy, Feature Engineering), Specialized AI: Computer Vision (YOLO, MediaPipe, OpenCV, Anomaly Detection), Time Series Analysis (Forecasting: LSTM/Transformer-based, ARIMA, Prophet; Anomaly Detection), NLP (LLM Integration: Ollama, LangChain, Hugging Face Transformers; BERT, Speech-to-Text/TTS).
- Backend & MLOps: Django, FastAPI, PostgreSQL, MySQL, MongoDB, Redis, Git/GitHub, Docker, API Development, Real-time Systems, Basic Cloud Deployment.
- Data Analysis & Tools: Pandas, NumPy, Matplotlib, Plotly, Jupyter, Streamlit, EDA, Statistical Modeling.

## SOFT SKILLS

- Leadership
- Technical Writing
- Mentorship
- Team Collaboration
- Critical Thinking
- Project Management.

## LANGUAGES

- Persian (Native)
- Tajik (Fluent)
- English (Fluent)

# SELECTED PROJECTS

- Social Media Crime Detection
   Developed a deep NLP classifier using LLM & YOLLO to detect criminal content in Persian-language social media.
- Text-Based Web Detective Game Created a Django-based interactive detective game where users solve fictional cases by examining evidence.
- COVID-19 Diagnosis and Lung Segmentation
   Built a ResNet50-based classifier and lung lobe detector using X-ray and CT scans for COVID-19 cases.
- Suspicious Loan Applicant Detection

  Designed a neural network to predict likelihood of loan repayment using imbalanced financial data.
- Anomaly Detection in Manufacturing Video
   Implemented autoencoder-based models to detect unusual activity in industrial video streams.