

# AMIR HOSSEIN ROSHANDEL

Software Engineering

✉ [roshandel2004@gmail.com](mailto:roshandel2004@gmail.com) ☎ +989154464099  [LinkedIn](#)

## Education

---

### University of Tehran

Master of Software Engineering

Tehran, Iran

September 2023–Present

### Ferdowsi University of Mashhad

Bachelor of Computer Engineering

Mashhad, Iran

September 2018–June 2023

## Experience

---

### NeshanMaps

Engineering Manager

Mashhad, Iran

July 2024–Present

- Promoted to Engineering Manager to lead a team of 4 developers, overseeing the design and implementation of key backend solutions.
- Implemented intelligent ad placements integrated with machine learning models, doubling advertising revenue and personalizing campaign performance during this period.
- Designed and implemented a robust suggestion system to enhance user engagement and provide personalized recommendations, significantly improving overall system effectiveness.

Software Engineer

August 2021–Present

- Redesigned and refactored the geocoding system, achieving a 3x increase in scalability and maintainability while reducing query latency by 15% and enhancing accuracy by 20%.
- Optimized the reverse geocoding pipeline, achieving a 10% improvement in processing speed and a 12% boost in location matching precision.
- Improved search CTR from 57% to 64% through targeted optimizations and advanced indexing strategies.
- Expanded user base from 10 million to over 30 million users, achieving more than 3 million daily active users.

## Teaching Assistant

---

- **Intelligent Information Retrieval (Fall 2024, University of Tehran):** Assisted Dr. Azadeh Shakery.
- **Artificial Intelligence (Spring 2022, Ferdowsi University):** Assisted Dr. Abrishami and Dr. Harati.
- **Python Workshop (Spring 2022, Iranian Geophysical Society):** Taught Python to master's students.
- **Web Development (Spring 2021, Ferdowsi University):** Assisted Dr. Milani Fard.

## Highlighted Projects

---

### Master's Thesis

- **Title:** Personalization and Diversification of Recommendations in Conversational Recommender Systems with a Focus on User Preferences.
- **Goal:** Investigating novel methods to enhance recommendation systems by incorporating user preferences for better personalization and diversity.
- **Techniques:** Utilizing BERT for natural language understanding, collaborative filtering, and attention mechanisms to improve user interaction in conversational systems.
- **Tools:** Leveraging TensorFlow, PyTorch, and Hugging Face Transformers to build and evaluate recommendation models.

## Electrical Cable Price Estimation

- In-progress: Developing a machine learning model to predict electrical cable prices based on market data and attributes.

## Technical Skills

---

**Languages:** Java, Python, C

**Frameworks:** Spring Boot, TensorFlow, PyTorch

**Databases:** PostgreSQL, Redis

**Retrieval Tools:** Elasticsearch, Lucene, NLTK, SpaCy

**Messaging Tools:** RabbitMQ, Protobuffer, gRPC

**DevOps Tools :** Kubernetes, GitLab CI/CD, Docker