

Mohammad Choupan

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Profile

Graduated from Amirkabir University of Technology with a degree in Computer Engineering. Full-stack developer with over 5 years of experience, skilled at building web applications from the ground up. Proficient in agile methodologies and comfortable working in fast-paced environments.

Work Experience

- July 2025 – **AI Engineer** *Behavior Understanding*, Tehran, Iran
- March 2025 ○ Designed a large language model (LLM) to analyze government behavior based on their activity across social networks and news sources.
- July 2025 – **AI Engineer** *Profile Mapping*, Tehran, Iran
- March 2025 ○ Mapped different social media profiles belonging to the same individual and extracted comprehensive personal data.
- November 2024 – **Software Engineer** *Opensecurity*, Remote
- March 2025 ○ Opensecurity was a US-based startup. I worked as a full-stack software engineer, designing and developing various components of the platform. [Repo](#)
 - Developed a chatbot to generate SQL queries from natural language in under 5 seconds.
 - Built a web UI based on Amazon Cloudscape.
 - Packaged the platform as a Helm chart for modular, production-ready Kubernetes deployment, reducing installation time to under 2 minutes.
 - Enhanced Steampipe to support offline SQL querying on cached data with 500+ tables.
 - Led the development of 15+ plugins and their corresponding "describers" for GitHub, Kubernetes, AWS, Azure, GCP, and Linode.
 - Published an open-source tool with 600+ stars on GitHub.
- March 2024 – **Front-end Team Lead** *Goldiran asayesh*, Tehran, Iran
- November 2024 ○ Goldiran Asayesh is a company that provides insurance services. I am responsible for leading a team of three front-end developers to create a new website for the company and manage existing websites, such as [Goldiran Asayesh](#), [Kardoorn](#) and [Inzi](#). Additionally, I handled DevOps tasks, including writing CI/CD in gitlab, Docker, and web server management.
- February 2021 – **Freelancing as a Full-stack Developer** *Tehran, Iran*
- Present ○ **Designed and developed the [Inventory Gap Analysis System](#) for World Help Organization (WHO).**
 - Worked as a full-stack developer using ReactJS and Django.
 - Developed a mobile app [Inventory and Gap Analysis](#) with React Native, published on the App Store.
 - Designed and validated analysis workflows for vaccine stock data in over 13 countries, including Ukraine, Azerbaijan, the Philippines, and more.
 - Implemented load balancing to handle traffic for all countries on a single server.
- **Designed and developed Cloud Drive.**
 - Designed a simple cloud drive for personal use by the company.
- **Designed and developed Baham store online shop website.**
 - Designed a complicated shop for Baham store. Iran's biggest apple store. [Website](#)
- **POD app**
 - Pod App is a petroleum marketplace where users can buy and sell petroleum products. I am responsible for developing both the website and the admin Panel app for this project using ReactJS and Django. The app is currently still under development. [Website](#)
- **LandoLet**
 - LandoLet is a mobile app for renting an apartment in uk, I'm using Django-DRF to develop the back end of this mobile app [repo](#)
- April 2023 – **Point Cloud Classification** *Tehran, Iran*
- June 2024 ○ Finding the best way to classify point cloud data with the highest accuracy.
- April 2023 – **Evaluation of positioning error in self-driving cars using map matching methods** *Tehran, Iran*
- June 2024 ○ Finding Object cause error in NDT matching algorithm. Use Neural Networks to find object can cause error and objects can reduce the error.

Notable Projects

Spring 2023 **Data Mining Course Projects** [GitHub](#)

- Preprocessed raw data and performed dimension reduction with PCA using a given dataset.
- Implemented a TensorFlow Neural Network project, tuned hyperparameters, and analyzed results using visualization.
- Applied association rules to a hypermarket dataset.

Spring 2022 **Search Engine** [GitHub](#)

- Built a news search engine that retrieves news articles by implementing tf-idf and k-means models and a k-nearest neighbors (KNN) classifier for categorizing unlabeled data in Python.

Fall 2021 **Fuzzy Inverted Pendulum** [GitHub](#)

- This project consists of an inverted pendulum simulator and a fuzzy controller. The main goal was to develop a simple yet useful simulator to model the environment, allowing for the creation of a fuzzy controller for the inverted pendulum problem. It was implemented using pygame and pyfuzzy in Python 2.7.

Fall 2021 **Image Processing with ANN** [GitHub](#)

- This is a simple example of image processing with ANN. The goal is to classify images of fruits using the Fruits-360 dataset. The project involved calculating the accuracy of the model.

Fall 2021 **Snail Jumper** [GitHub](#)

- This is a simple example of using neuroevolution in games. It uses neural networks and a genetic algorithm to control a snake.

Technical Skills

Programming Languages: *Python, Bash, JavaScript*

Tools/Frameworks: *PyTorch, Scikit-Learn, TensorFlow, Pandas, NumPy, ReactJS, Django*

Other: *Git, LaTeX, Linux*

Education

2020 – 2024 **Bachelor's Degree** *Amirkabir University of Technology, Tehran, Iran, Computer Engineering*

- GPA: 3.7/4
- GPA Over the Last Two Years: 3.83/4

BSc Thesis

August 2023 – June 2024 **Assessment of the Fusion of Graph Models and Point Net Model for Processing Graph and Point Cloud Data**

- Supervisor: Prof. Javanmardi.
- Implementation and analysis of combining two common models in 3D Object classification, including SAG Pool and Point-Net, to gain the highest accuracy in point cloud classification.

References, further information, and proofs are available upon request