# Ali Nazari

Email: ali4nazari4@gmail.com Homepage: ce.aut.ac.ir/~nazari Phone: +98 921 281 2589 linkedin.com/in/ali-nazariii github.com/AliNazariii

#### Education

# Amirkabir University of Technology

Tehran, Iran

B.Sc. Computer Engineering (GPA: 3.52/4)

Oct. 2017 - Present (Dec. 2021 Expected)

• Thesis (Recently started): Persian Poetry Generation using Deep Neural Networks

## Alborz High School

Tehran, Iran

Aug. 2013 - Sept. 2017

Mathematics (GPA: 19.86/20)

#### Research Interests

- Natural Language Processing
- Deep Learning

• Recommender Systems

• Machine Learning

• Data Mining

• Information Retrieval

# Research Experience

#### Poem Metre Detector | NLP, Machine Translation

May. 2021 - Present

- A sequence to sequence model to predict metre of persian poems
- Using an encoder-decoder architecture with different structures like GRU, LSTM, and attention mechanism
- Under supervision of Prof. Zeinali
- will release and publish soon

# Work Experience

## Machine Learning Engineer

Mar. 2021 - Present

Bale Messenger (A Social Payment Platform)

Tehran, Iran

- Research, design, and develop a service to answer customers' questions in an e-banking platform
- Provide a classification service to classify Persian questions with different word embeddings like BERT and Fasttext
- Develop a service to find similar questions using both deep learning and retrieval methods
- Participate in designing a recommender system to recommend channels in a messenger
- Core member of data science chapter

#### Software Developer

Aug. 2020 - Mar. 2021

Tehran, Iran

- Bale Messenger (A Social Payment Platform)
  - Developed a new reactive web application with an MVI (Model-View-Intent) architecture
  - Contributed as a core member of new Bale messenger client which implemented in TypeScript
  - Used modern front-end technologies like ReactJS, RxJS, Redux, ...

#### Self Projects

#### Digikala Sentiment Analysis | NLP, Deep Learning, LSTM

**Summer 2021** 

- Predict whether a comment left in Digikala is recommending a product or not.
- Used text classification methods and an LSTM model with fastai

# Part of Speech Tagger | NLP, BERT

Winter 2021

- A POS (Part-of-speech) tagger to grammatically classify tokens (noun, verb, adjective...) in a sentence.
- Used a pre-trained model name ParsBERT, a transformer-based Persian language understanding model, and a monolingual one based on Google's BERT model
- Fine-tuned with Bijankhan Corpus

# Iran Covid-19 Clusters | ML, Clustering

Fall 2020

- Used different clustering approaches like K-Means, DBScan, ...
- Cluster Covid-19 cases in Iran
- Find cities highly affected

# $\textbf{Toggl} \mid \textit{TypeScript}, \textit{ReactJS}, \textit{Redux}$

**Summer 2020** 

- Toggl is a time tracker developed with TypeScript and ReactJS
- You can start time entries with toggl and track or manage them
- This is a mobile-based client and connected to my real Toggl account through Toggl API

#### Volunteer Experience

Chairman Mar. 2019 - Sep. 2020

Students' Scientific Chapter of AUT-CE

Tehran, Iran

- Elected as a member and head of the management board by students of the CE Department of Amirkabir University
- Organized more than 40 events, talks, competitions, festivals, seminars, and workshops
- Took part as an executive and technical committee member and head of many conferences, workshops, festivals, and competitions such as:
  - 19th Amirkabir University of Technology International Collegiate Programming Contest (AUT-ICPC) (Fall 2019)
  - 11th Amirkabir Linux Festival (Winter 2020)
  - 6th Amirkabir Programming League (APL 2019) (Spring 2019)
  - 1st Amirkabir Artificial Intelligence Summer Summit (AAISS 2019) (Summer 2019)

# Notable Course Projects

Information Retrieval: Search Engine (TF-IDF, clustering, and classification)

Data Mining: Predict student marks (Regression), Predict Titanic survival (Decision Tree), Predict heart disease (Naive

Bayes and KNN), PCA on Glove word representation

Computational Intelligence: TSP (Genetic)

Artificial Intelligence: Poet Predictor (N-gram language model), Classical Tree Search Algorithms

Cloud Computing: Load balancer, VM manager cli

Principles of Database Design: Restaurant Manager Application

#### Online Courses and Certificates

Machine Learning: Coursera (Stanford University)

Neural Networks and Deep Learning: Coursera (deeplearning.ai)

Python: Kaggle, DataCamp

# Teaching Experiences

Teaching Assistant, Software Engineering II (Fall 2021): Coordinating the team, designing projects, and grading assignments Teaching Assistant, Principles of Computer Programming lab (Fall 2020): participate in designing laboratory materials

#### Technical Skills

Data and Machine Learning Tools: Pandas, Numpy, scikit-learn, Pytorch, Transformers

Programming and Scripting Languages: Python, JavaScript, TypeScript, Java, HTML/CSS/SASS

Web Frameworks and Databases: ReactJS, Redux, RxJS, NodeJS, Flask, Fastapi, Django, gRPC, SQL, PostgreSQL

Soft Skills: Humble, Teamwork, Patience, Accountability, Leadership

Graphic Design: Adobe Photoshop, Adobe Illustrator, Adobe XD

Operation Systems: Linux, Windows

Developer Tools: Git, Docker

#### References

Hosein Zeinali: Assistant Prof., Computer Engineering Dept., Amirkabir Univ. of Technology | hzeinali@aut.ac.ir Bahador Bakhshi: Assistant Prof., Computer Engineering Dept., Amirkabir Univ. of Technology | bbakhshi@aut.ac.ir Masoumeh Taromi: Assistant Prof., Computer Engineering Dept., Amirkabir Univ. of Technology | m.taromirad@aut.ac.ir

#### Languages

English | Will take Toefl iBT

Honors and Awards

Persian | Native

# • Achieved top 0.3% (Rank 425) place among all applicants of the Nationwide University Entrance Exam for B.Sc. in Math. and Engineering (Approximately 137000 applicants), Iran - August 2017.

• Accepted in 1st stage of Chemistry Olympiad in National Organization for Development of Exceptional Talents, Iran -June 2015.

Last Update: Sep. 2021