Alireza **Zolanvari**

DATA ENTHUSIAST · AI EXPERT

Groningen, Netherlands

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Profile

Some of my main contributions and experiences:

- More than 7 years experience in Python and SQL programming and software development.
- Educated and experienced in Data science and Optimization algorithms (PhD candidate).
- Experienced in information extraction and descriptive/predictive analytics in multiple projects.
- Knowledgeable in data processing, data modeling, and data pipeline.
- Acquainted with big data processing and data stream management (Apache ecosystem).
- Experienced in dev-op tools and Agile methods.
- Eager to learn, analytical thinker, autonomous, communication and collaboration skills.

Experience

- **Data Engineer**
DATA SCIENCE LAB., POOYA CO. INC.

Tehran, Iran
Jan. 2020 – Aug. 2020

- **Responsibilities:** - Contribution in design and implementation of a **data pipeline** (ingestion, transformation and process, cleaning, and monitoring) for a big data stream.
- **Tech. stack:** **Python** (Pandas, Kafka, PySpark, PyFlink), **Hadoop HDFS**, **Oracle DB** (SQL), **Redis**, MongoDB, Oracle AWM, Oracle ODS

- **Data Scientist**
DATA SCIENCE LAB., POOYA CO. INC.

Tehran, Iran
Nov. 2017 – Mar. 2020

- **Responsibilities:** - Developing a real-time credit card fraud detection system using statistical and deep learning algorithms.
  - Developing an offline employee fraud detection system using graph analysis and graphical neural networks.
  - Developing a fully autonomous system for detecting and reporting bank accounts of illegal gambling websites using web scraping and text and image processing.
- **Tech. stack:** Python (Pandas, TensorFlow, Django, Selenium, Beautifulsoup), Docker, Oracle DB (SQL)

- **Open Source Developer**
PyCM (OPEN SOURCE PYTHON LIBRARY)

Feb. 2018 – Present

- **Project:** Design and implementation of an open source **Python library** for evaluating confusion matrices
- **Responsibilities:** - Core developer and algorithm design
  - Research on the existing metrics and proposing new metrics
  - CI/CD, documentation, and reviewing issues and pull requests

Education

PhD in Data Science and Optimization Algorithms
UNIVERSITY OF GRONINGEN

Groningen, Netherlands
Sept. 2020 – Present

- **Thesis Title:** Data-driven optimization of iterative **predictive** control problems

MSc in Electrical Engineering (Control Systems)
AMIRKABIR UNIVERSITY OF TECHNOLOGY

Tehran, Iran
Sept. 2015– Feb. 2018

- **Thesis Title:** Anomaly detection in bio-signals for controlling a 5 DoF hand exoskeleton

BSc in Electrical Engineering (Control Systems)
AMIRKABIR UNIVERSITY OF TECHNOLOGY

Tehran, Iran
Sept. 2011– Sept. 2015

- **Thesis Title:** 3D hand gesture recognition for controlling a wrist rehabilitation robot

Skills

Mathematics	Mathematical modeling, Optimization, Statistics
Programming	**Python** (7 years), **C/C++** (9 years), **Matlab** (7 years), JavaScript (1 year)
Python libraries & frameworks	• **Data science**: Pandas, TensorFlow, scikit-learn, Keras, KerasRL • **Optimization**: CVXPY, GEKKO, MOSEK • **API**: Django, Flask, FastAPI • **Data Stream**: PySpark, PyFlink, Kafka • **Web scraping**: Selenium, Beautifulsoup
Data	• **Visualization**: Tableau • **Query language**: SQL, PL/SQL, MQL • **DBMS**: Oracle DB, MySQL, SQL Server, PostgreSQL, SQLite, MongoDB, Redis • **Apache ecosystem**: Spark, Kafka, Flink, Hadoop HDFS • **Oracle ecosystem**: Oracle ODS, Oracle AWM, Oracle Apex, Oracle Business Analytics
DevOps	Docker, Git, Agile (Scrum)
Concepts	Data stream, ETL, OLAP, OLTP, RDBMS, NoSQL, Anomaly detection, NLP, CI/CD, Object Oriented
Soft skills	Critical-thinking, Eager to learn, Problem-solving, Creativity, Planning, Adaptability, Communication, Team-working

Honors & Awards

Aug. 2022	**Awarded a grant for PyCM project**, Python Software Foundation	*Virginia, USA*
July 2022	**Nominated for the Best Student Paper Award**, European Control Conference	*London, UK*
May 2022	**Awarded a grant for PyCM project**, NLnet foundation	*Netherlands*
July 2021	**Ranked 1st in AI Hackathon COVID**, University of Groningen	*Netherlands*
July 2020	**Awarded a PhD fellowship in DSSC group**, University of Groningen	*Netherlands*
Nov. 2018	**Ranked 14th out of 3224 teams**, ZhejiangLab Global AI- Zero-shot Learning Picture Recognition	*China*
July 2017	**Ranked 4th with "Parsian Robotics Group" in Small Size Soccer League**, Robocup Competitions	*Nagoya, Japan*
Sep. 2015	**Direct admission to the graduate school of Electrical Engineering**, Amirkabir University of Technology	*Tehran, Iran*
Aug. 2015	**Ranked 1st out of 25 students in Electrical Engineering**, Amirkabir University of Technology	*Tehran, Iran*

Language

English	Full Professional Proficiency - C1
Dutch	Elementary Proficiency - A2/B1
Persian	Native Proficiency

Interests

- Endurance running
- Personal development
- Technology and AI news
- Video game