

MOHAMMAD JAVAD ZANDIYEH

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EDUCATION

Amirkabir University of Technology (Tehran Polytechnic)

Tehran, Iran

Rank 3 Among All Iranian Universities in QS World University Rankings, 2024

- **B.Sc** in Computer Engineering, *Sep. 2019 – Jan. 2024 (Expected)*
 - Supervisor: Dr. Mostafa Haghiri Chehrehgani
 - Major GPA: **18.45/20 (3.97/4)**
 - Overall GPA: **18.28/20 (3.94/4)**

Shahid Qoddoosi High School

Qom, Iran

Affiliated with National Organization for Development of Exceptional Talents (NODET)

- **Diploma** in Mathematics and Physics, *Sep. 2016 – Jun. 2019*
 - Overall GPA: **19.56/20 (4/4)**

RESEARCH INTERESTS

- Natural Language Processing
- Information Retrieval
- Machine Learning
- Graph Neural Networks
- Recommender Systems
- Data Mining

HONORS AND AWARDS

- Being admitted as a **software engineer** at **Digikala.com**, Iran's foremost high-tech company, *2022*
- Among the **top 0.4%** of all applicants for the **Iranian University Entrance Exam** in Mathematics and Physics (**rank 526** among more than 164000 applicants), *2019*
- Benefit from special facilities for **privileged high school students** entering the university, *2019*
- Among the **top 5 students** in middle school and high school with numerous awards, *2013 – 2019*
- Among the **top 1%** of all applicants for admission to the **National Organization for Development of Exceptional Talents (NODET)**, *2013*

RESEARCH EXPERIENCES

Amirkabir University of Technology

- **Research Assistant**, *Apr. 2023 – Present*
 - Researching **Fairness in Graph Neural Network Based Recommender Systems**
 - Supervisor: Dr. Mostafa Haghiri Chehrehgani
- **Research and Technical Presentation Course**, *Feb. 2022 – Jun. 2022*
 - Researching **Adversarial Attacks and Defences in Deep Learning**
 - Lecturer: Dr. Reza Safabakhsh

WORK EXPERIENCES

Digikala.com

Tehran, Iran

The biggest Iranian e-commerce company with over ten subsidiaries

- **Software Engineer** (Back-end Developer), *Jul. 2022 – Apr. 2023*
 - Skills: Big and Sensitive Data Management, Availability, Proficiency in Team Communication
 - Tools: PHP, Symfony Framework, Docker, Git, MySQL, Redis, Elasticsearch

- **DevOps Engineer** (Internship), *Jul. 2022 – Sep. 2023*
 - Skills: Rapid Acquisition of New Technologies, Document Construction
 - Tools: Python, Django Framework, Docker, Kubernetes

TEACHING EXPERIENCES

Amirkabir University of Technology

- **Microprocessor and Assembly Language - Teaching Assistant**, *Jan. 2022 – Jun. 2022*
 - Under the supervision of Dr. Hamed Farbeh
- **Algorithm Design - Teaching Assistant**, *Sep. 2021 – Jan. 2021*
 - Under the supervision of Dr. Alireza Bagheri
- **Electrical and Electronic Circuits - Teaching Assistant**, *Sep. 2021 – Jan. 2021*
 - Under the supervision of Dr. Mahmoud Momtazpour
- **Logic Circuits - Teaching Assistant**, *Sep. 2021 – Jan. 2021*
 - Under the supervision of Dr. Mehdi Sedighi and Dr. Morteza Saheb Zamani

VOLUNTEER WORKS

CWS 2022: Amirkabir Computer Webinar Series 2022

- **Research Team Member** - Theory and Algorithms, *May 2022 – Sep. 2022*

AAIC: Amirkabir Artificial Intelligence Competition

- **Executive Staff** - 7th Series, *May. 2023 – May. 2023*
- **Advertising Assistant and Executive Staff** - 6th Series, *Jan. 2022 – May 2022*

TECHNICAL SKILLS

- **Programming**
 - Professional in Python, C/C++, Java, PHP, MATLAB, GNU Octave, PyTorch, PyG
 - Familiar with HTML, CSS, JavaScript, Kotlin, Assembly language, Verilog, VHDL
- **Databases**
 - MySQL, PostgreSQL, Redis
- **Operating Systems**
 - macOS, Linux (Ubuntu), Microsoft Windows, xv6
- **Developer Tools**
 - JetBrains, Visual Studio Code, Atom, Jupyter Notebook, Google Colab, Kaggle
- **Miscellaneous**
 - Docker, Kubernetes, Git, L^AT_EX, Django REST Framework

CERTIFICATES

- **Neural Networks and Deep Learning** ([link](#))
 - Issuing Organization: Coursera, DeepLearning.AI
- **Generative Adversarial Network** ([link](#))
 - Issuing Organization: Amirkabir University of Technology, AAISS
- **Advanced Python Programming And Object-Oriented Thinking Course** ([link](#))
 - Issuing Organization: Quera, Quera College
- **Software Engineering** ([link](#))
 - Issuing Organization: Digikala.com, Quera.org

TOP ACADEMIC PROJECTS

- **Coin Price Notifier** ([link](#))
 - Using Docker, Kubernetes, Django, and React
 - Implementation of a coin price notifier with monolithic architecture
- **xv6 Operating System** ([link](#))
 - Using C, Linux (Ubuntu), and QEMU emulator
 - Implementation of new system calls, thread handling, and new CPU scheduling policies for xv6-public
- **Information Retrieval System** ([link](#))
 - Using Python and Elasticsearch
 - Implementation of an information retrieval system that ranks documents based on their similarity to the query
- **Computational Intelligence Projects** ([link](#))
 - Using Python
 - Implementation of a neural network, a fuzzy system, and a neuroevolutionary game
- **Noise Cancellation and Bitmap Image Compressor** ([link](#))
 - Using Python and Jupyter Notebook
 - Implementation of a noise cancellation system for the Bitcoin price diagram, and implementation of a bitmap image compressor with linear algebra techniques
- **Pacman** ([link](#))
 - Using Python
 - Implementation of single-agent search, multi-agent search, and reinforcement learning algorithms
- **Routing with Graph Algorithms** ([link](#))
 - Using Java
 - Implementation of Dijkstra's algorithm to reduce traffic problems
- **Ghanari System** ([link](#))
 - Using Python, MySQL and MySQL Workbench
 - Implementation of a command-line-based system similar to Twitter

REFERENCES

- **Dr. Mostafa Haghiri Chehreghani**
 - Assistant Professor, Amirkabir University of Technology
 - Email: mostafa.chehreghani@aut.ac.ir
- **Dr. Hossein Zeinali**
 - Assistant Professor, Amirkabir University of Technology
 - Email: hzeinali@aut.ac.ir
- **Dr. Alireza Bagheri**
 - Associate Professor, Amirkabir University of Technology
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- **Dr. Mahmoud Momtazpour**
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