

# MOHAMMAD JAVAD ZANDIYEH

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🐙 <https://github.com/JavadZandiyeh>

## EDUCATION

### Amirkabir University of Technology (Tehran Polytechnic)

Tehran, Iran

Rank 2 Among All Iranian Universities in QS World University Rankings, 2022

- **B.Sc** in Computer Engineering, *Sep. 2019 – Jun. 2023 (Expected)*
  - GPA: **18.18/20 (3.96/4)**
  - Supervisor: Dr.Mohammad Rahmati

### 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*
  - GPA: **19.56/20 (4/4)**

## RESEARCH INTERESTS

- Artificial Intelligence
- Machine Learning
- Neural Networks and Deep Learning
- Computer Vision
- Pattern Recognition
- Reinforcement Learning
- Internet of Things

## HONORS AND AWARDS

- Among the **top 0.3%** of all applicants for the **Iranian University Entrance Exam** in Mathematics and Physics(**rank 526** among more than 164000 applicants), *2019*
- **Full tuition waiver** in Amirkabir University of Technology, *2019*
- Benefit from special facilities for **privileged high school students** entering the university, *2019*
- Among the **top 5 students** in the middle school and high school with numerous awards, *2013 – 2019*
- Among **top 1%** of all applicants for admission in the **National Organization for Development of Exceptional Talents (NODET)**, *2013*

## TEACHING EXPERIENCES

### Amirkabir University of Technology

- **Microprocessor and Assembly Language - Teaching Assistant**, *Jan. 2021 – Present*
  - 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

## LANGUAGES

- **Persian (Farsi):** Native
- **English:** Upper Intermediate
- **Arabic:** Intermediate

## TECHNICAL SKILLS

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- **Programming**
  - Professional in C/C++, Java, Python, MATLAB, GNU Octave, SQL
  - Familiar with HTML, CSS, JavaScript, Assembly language, Verilog, VHDL
- **Databases**
  - MySQL, PostgreSQL, NoSQL, Redis, MySQL Workbench
- **Operating Systems**
  - Microsoft Windows, Linux (Ubuntu), xv6
- **Developer Tools**
  - Visual Studio Code, Atom, Jupyter Notebook, IntelliJ, PyCharm, Code::Blocks, Arduino IDE, Xilinx ISE
- **Miscellaneous**
  - Git, L<sup>A</sup>T<sub>E</sub>X, Django, Django REST Framework, Proteus Design Suite, OrCAD, ROS

## CERTIFICATES

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- **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

## TOP ACADEMIC PROJECTS

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- **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
- **XO Game** ([link](#))
  - Using Arduino IDE, Proteus Design Suite, XBee Modules, Arduino Mega 2560, and Virtual Serial Port Driver
  - Implementation of the XO two-player game for playing from a distance via LCD and keypad
- **Smart House Management System** ([link](#))
  - Using Verilog and Xilinx ISE
  - Implementation of a real-time embedded system that collects data from the environment and shows appropriate warnings to users
- **jURL and Insomnia** ([link](#))
  - Using Java, Java Swing, and cURL
  - Implementation of jURL which is a command-line tool for transferring data using various network protocols (similar to cURL), and implementation of Insomnia which is an API platform for building and using APIs (similar to Postman)
- **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
- **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

## REFERENCES

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- **Mohammad Rahmati, Professor**
  - Email: rahmati@aut.ac.ir
- **Hamed Farbeh, Assistant Professor**
  - Email: farbeh@aut.ac.ir
- **Ahmad Nickabadi, Assistant Professor**
  - Email: nickabadi@aut.ac.ir
- **Hossein Zeinali, Assistant Professor**
  - Email: hzeinaliaut.ac.ir

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