Farhad **Vaseghi**

AI AND ROBOTICS MASTER STUDENT OF ISFAHAN UNIVERSITY OF TECHNOLOGY

Isfahan-Iran

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"Be the change that you want to see in the world."

Education

IUT(Isfahan University of Technology) — *Isfahan, Iran*

M.S. in Artificial Intelligence and Robotics — *Sept. 2021 - Present*

- (GPA: 17.58/20 or 4/4).

IUT(Isfahan University of Technology) — *Isfahan, Iran*

B.S. in Electrical Engineering — *Sept. 2017 - July 2021*

- (GPA: 16.95/20 or 3.54/4).

Honors & Awards

2021 **Elite student**, Entering master degree directly without domestic qualification exam (Konkour). *Isfahan, Iran*

2017 **Elite student**, Received national undergraduate full scholarship. *Isfahan, Iran*

2017 **Konkoor**, Ranked 820 among more than 500,000 participants for the university entrance. *Isfahan, Iran*

Academic Projects

Toxic Comment Classification on dataset provided by Jigsawa/Conversation AI.

DEEP LEARNING COURSE

SLAM using gmapping with TurtleBot robot and Gazbo.

ROBOTICS COURSE

AI Driven Snake Game using Deep Q Learning with PyTorch.

REINFORCEMENT LEARNING COURSE

Aerial Imagery Segmentation on Dubai's Satellite Imagery Dataset.

DEEP LEARNING COURSE

Capuchinbird Audio Classification with Tensorflow.

ML COURSE

Sound power estimation with an acoustic camera (UMA-16 USB which from MiniDsp Company).

BACHELOR DEGREE PROJECT

Creating an interface for automotive radar (ARS 408 from Continental Company).

A Hybrid Algorithm for Disparity Calculation based on Semantic Stereo Matching.

COMPUTER VISION COURSE

Creating a signal generator with Verilog language on Xilinx Spartan-6 LX9.

FPGA PROGRAMMING COURSE

Flappy Bird game Using Pygame module.
PYTHON PROGRAMMING COURSE

Professional Work Experiences

AI AND ROBOTICS Lab(Dr.Samaneh Hosseini Semnani) *Isfahan, Iran*
RESEARCHER *Nov. 2021 - Aug. 2022*

- The project was about implementing and simulating ORCA(Optimal Reciprocal Collision Avoidance) algorithm for Drone Light Show.
- Implemented simulations phase on GAZEBO.

RASA MOJE Company *Isfahan, Iran*
RESEARCHER *July 2020 - Mar. 2021*

- Introducing and Implementing algorithms for Automotive Radars.
- Implemented a framework for signal processing algorithms related to the cruise control systems of cars for automotive radars (AWR1243, TSW1400EVM, and DCA1000EVM from Texas Instruments company).

Teaching Experiences

Lab Instructor

- Digital Signal Processing Lab, Isfahan University of Technology.
- C Programming Lab, Isfahan University of Technology.

Teaching Assistant

- FPGA Programming with Verilog, Isfahan University of Technology.
- Digital System Design I, Isfahan University of Technology.

Mentor

- Digital system Design with Arduino, Isfahan University of Technology.

Skills

Programming	Matlab, Python, C/C++, Verilog, Assembly, LATEX, version control GIT
AI and Robotics Tools	OpenCV, ROS, Gazebo
PCB Design Software	Altium Designer
Micro Controllers/FPGA	AVR, ARDUINO, FPGA (Xilinx)
Languages	Farsi (native), English (fluent)

References

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