



Amin Saffar

Industrial computing and automation
engineering student

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EDUCATION

Engineering Degree in Industrial Computing and Automation

National Institute of Applied Sciences and Technology

09/2018 - Present

Courses

- Risk assessment, Embedded Systems, Hardware Engineering, Electronics
- control Design, estimation, system modeling, robotics

Integrated preparatory cycle for engineering

National Institute of Applied Sciences and Technology

09/2016 - 06/2018

Courses

- 1st Year : Mathematics, Physics and Computer science
- 2nd year : Automation and Industrial Computer Science

High school Diploma , Technical sciences, (flying colors)

Pioneer High School

09/2015 - 06/2016

PROFESSIONAL EXPERIENCE

Ezzayra solutions trainee

07/2020 - 09/2020

Tasks

- Implementing a control model for a farmer robot.
- Fusing GPS RTK and IMU data using the Kalman Filter.
- Integrating the ROS navigation stack with a real robot.

Transfer Multisort Elektronik (TME Edu) ambassador

09/2019 - Present

Tasks

- Teaching electronics and programming basics to youth across Tunisia.
- Establishing educational labs in schools with unfavorable conditions.
- Teaching new instructors to work in the TME labs .

PLACEHOLDER trainee

08/2019 - 09/2019

Tasks

- Designing a PCB that enables the communication between a VR headset and a 5D chamber using the TCP Protocol.
- Manufacturing and testing the PCB.
- Programming the microprocessor (RPI zero W) to handle the communication with the VR headset.

SKILLS

ROS | matlab | simulink

Localization | Sensor fusion

Reinforcement learning | Deep learning

PCL|Open3d

Control Design | Navigation

Opencv | YOLO | tensorflow

STM32(Keil +CubeMx) | PIC(MikroC) | atmega(AtmelStudio)

Nvidia Jetson |Raspberry PI

C/C++ | Python | GIT | Linux

PERSONAL PROJECTS

Dr.sina (medical robot) (03/2020 - 05/2020)

- Intergrating ROS navigation stack with obstacle avoidance.
- Determining objects of interest 's positions using object detection with YOLOv3 and Point cloud processing with Open3D.

Land a lunar rover on the moon (03/2020 - 05/2020)

- Implementing an Expected Sarsa agent.
- Implementing a NN for action_value approximation with the Adam Algorithm to optimize it.

Obstacle detection system using IR (11/2017 - 06/2019)

- Designing an IR tag and beacon to estimate the distance and angle between a robot and a moving obstacle.

Autonomous Robots : Eurobot 2019 (Quarter-finals) (09/2018 - 05/2019) | Eurobot 2018 (Eighth-finals) (09/2017 - 05/2018)

- Participation in the development of mobile robots that obey unique specifications: Eurobot (Position Control with odometry and encoders, PCB Design, Electronics, HBridges, Beacons, Sensors Shields.

CERTIFICATES

Reinforcement Learning specialization (05/2020 - Present)

State Estimation and Localization for Self-Driving Cars (03/2020 - Present)

Motion Planning for Self-Driving Cars (05/2020 - Present)

NLP Technician certificate (12/2018 - Present)

12071

VOLUNTEER EXPERIENCE

Association of Robotics' Techniques (12/2018 - Present)

Board Member

AIESEC GLOBAL VOLUNTEER (Turkey) (06/2019 - 08/2019)

Provide Quality Education to people in refugee camps(4th SDG).

AeRobotix Club INSAT (Robotics and Aeronautics Club) (09/2018 - 09/2019)

Vice President ,trainor

Biat Youth Foundation (09/2016 - Present)

Elite Scholarship

LANGUAGES

French

Full Professional Proficiency

English

Full Professional Proficiency