Mariam Shehada

Skype: Mariam Shehada

EDUCATION & AWARDS

MSc Biomedical Engineering (with distinction). University of Southampton, UK Sep 2019-Sep 2020

- Biomedical engineering provides a stimulating mix of 'hard' science and engineering with the excitement of understanding biology better and the motivation to help patients. In my Master's degree, I was interested in improving my understanding of living systems and working on developing engineering skills by choosing several courses:
 - Robotic Systems.
 - Biologically Inspired Robotics.
 - Biomed Implants & Devices.
 - Image Processing.
 - Signal Processing.
- Thesis: "Objective Detection of the Auditory Brainstem Response Using the Parametric Bootstrap Technique". Based on signal processing and advanced statistics.
- Supervisor: Prof. David M. Simpson, Professor of Biomedical Signal Processing.

B.Sc. Mechatronics Engineering. An-Najah National Uni., Palestine

- Final year project: "IR 3D Scanner". Based on the Graphical User Interface and Triangulation Technology.
- Overall GPA = (3.78) on scale (0-4), excellent.
- Graduated with the second rank among engineering graduates (2017).
- Certificate of Academic Excellence and Dean's List for all semesters.

Faculty of honour at An-Najah National University

- Studied many courses which reinforced the communication, management and leadership skills:

- Skill Enhancement.
- Learning& Research Resources.
- Communication Skills.
- Leadership Skills.
- Discover Palestine.

National High School Diploma (Tawjihi) in Scientific Stream. Anabta High School, Palestine 2013

- Overall Score = 99.4%.
- Award for being the second rank among the matriculants regionally.

Training & Courses

- Self-Driving Cars Specialization by University of Toronto on Coursera (June 2021), consists of the following courses:
 - Introduction to Self-Driving Cars.
 - State Estimation and Localization for Self-Driving Cars.
- Deep Learning Specialization by deeplearning.ai on Coursera (May 2021), consists of the following courses:
 - Neural Networks and Deep Learning.
 - Convolutional Neural Networks.
 - Structuring Machine Learning Projects.
 - Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization.

Sep 2013-Dec 2017

Sep 2013 – Dec 2017

- Modern Robotics: Mechanics, Planning, and Control Specialization by University of Northwestern consists of the following courses:
 - A study of the kinematics, dynamics, motion planning, and control of mobile robots and robot arms
 - Foundations of Robot Motion.
 - Robot Kinematics.
 - Robot Dynamics
 - Robot Motion Planning and Control
 - Robot Manipulation and Wheeled Mobile Robots
 - Capstone Project, Mobile Manipulation
- Introduction to Artificial Intelligence (AI) on Coursera (Jan 2021)
- Finished 160 hours of training at the department of electrical and electronics at Ege University (Turkey) with the IAESTE program (summer 2017).
- Finished 160 hours of training at Al Fouad Company for Elevators and Electric stairs (May 2017).
- Raspberry-pi Course at Cambridge centre about the remote mentor, control robotics, and Python (Jan 2017).
- Advanced Electronic Course at "Specialists" centre (Jan 2015).
- Arduino Course in Wireless controlling and building Robots/ Cambridge centre in cooperation with IEEE (2014)

SCHOLARSHIPS & GRANTS

– Hani Qaddumi scholarship program (£34,268).	2019-2020
- IAESTE program to train at Ege University (15,000 TL).	Summer 2017
- President's scholarship for the top ten high school students in Palestine for 2013 (JOD 6118).	2013 - 2017

SKILLS

Programming	Python, MATLAB, C++, Visual Basic.
Software	SolidWorks, PLC, AutoCAD, Microsoft Office.
Languages	English (Proficient User), Arabic (Native), German (Beginner).

WORK EXPERIENCE & INTERNSHIPS

Instructor, Full time

Arab American university

- Teaching engineering and medical courses at the Prosthetics Department - Allied Medical Sciences

Research and Teaching Assistant, Full-time

Birzeit University

- Delivering laboratories, such as Control, Technical and Mechanical Drawing, MATLAB, Mechatronics & Robotics, circuits, Digital, Microprocessor & PLC, Measurements.
- Assessing quizzes and homework for Dynamics, Control Theory, Robotics, Vibrations, Sensors.
- Helping the professors develop experiments in the labs and designing workshops and training that introduce more practicality for the students.
- Helping the department with administrative tasks and invigilate exams and tests.

Research and Teaching Assistant, Full-time and Part-time

Al-Quds University & BirzeitUniversity

- The same tasks as the previous job.

March 2022 - Now

Jan 2019 - June 2019

LEADERSHIP & EXTRACURRICULAR

Organizer

I was a member at the Institution Of Mechanical Engineers (IMechE), I participated in many of their activities, for example,

I was one of the people who helped organize the first and second scientific exhibitions held at An-Najah National Uni. **Participant**

I joined the American corner at An-Najah National Uni. I made many friends from different cultures, helped them learn Arabic and escorted them on tourist trips around Palestine.

Volunteer

I volunteered to organize trips to hospitals to visit sick children at a local hospital "An-Najah National hospital".

Representative

I was selected to be the student representative for MSc Biomed Eng course.

REFERENCES

Prof. David M. Simpson Professor of Biomedical Signal Processing. University of Southampton <u>ds@isvr.soton.ac.uk</u>

Dr. Nidal Farhat Head of the Mechanical and Mechatronics Department. Birzeit University nfarhat@birzeit.edu Dr. Ihab H. Alsurakji Assistant Professor Mechanical Engineering Department An-Najah National University isurakji@ju.edu.jo