Mohammad Tuqan

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Education

American University of Beirut, Beirut, Lebanon

January 2018-July 2019

M.E. Mechanical Engineering (with thesis) GPA: 3.72/4.0

Research Topic: Unmanned Aerial Vehicle Path Planning for Surveillance Missions with Regions of Interest

American University of Beirut, Beirut, Lebanon B.E Mechanical Engineering

September 2014-June 2017

Research/Experience

Graduate Research Assistant, Vision and Robotics Lab, American University of Beirut, Beirut, Lebanon December 2017-Jume 2019

- Leading a team of three, I have taken on a project that aims at building an autonomous driving vehicle to be used as a research platform by the university. I worked on vehicle retrofitting, actuation, control and modeling, and path/motion planning, in addition to implementing and modifying ROS-based software, Autoware, for autonomous driving cars.

Undergraduate Research Assistant, Department of Electrical Engineering, American University of Beirut, Beirut, Lebanon September 2016-June 2017

- I completed a project that aimed at designing an automatic braking system for a multinational construction company to be installed on construction vehicles for on-site active safety.

Undergraduate Visiting Research Scholar, Glaser Lab, University of California, Berkeley, CA
June 2016-August 2016

- I modified and prepared a real time data acquisition interface to collect data and readings from multiple sensors for laboratory earthquake simulator. In addition, I developed a "pick-up" algorithm to process the raw data collected allowing the simulator to differentiate between main-shocks and fore-shocks.

Skills

- Graduate Coursework: Robotics, Adaptive Control, Stochastic Processes, Estimation and Detection, and Computer Vision
- Python, C++, ROS, Linux, Arduino, LABVIEW, MATLAB, SIMULINK.
- Microsoft Office, AutoCAD, CREO, ABAQUS, SolidWorks, WorkingModel2D.
- Languages: Proficiency in English and Arabic

Publications

- "A Simplified Path Planning Algorithm for Surveillance Missions of Unmanned Aerial Vehicles." Mohammad Tuqan, Naseem Daher, and Elie Shammas at IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM), 2019 (accepted).

References: Available upon request