Mostafa Rawas Kalaagi

3rd Year Mechanical Engineering Student

Highly motivated individual looking for an internship in the fields of automotive, robotics, construction, aerospace, and biomedical engineering.

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EDUCATION

Bachelor's Degree in Mechanical Engineering and a minor in Economics
American University of Beirut

08/2019 - 05/2023   *Beirut, Lebanon*

High School Degree in General Sciences
Beirut Baptist School

09/2008 - 06/2019   *Beirut, Lebanon*

WORK EXPERIENCE

Aviation Intern
Middle East Airlines (MEA)

12/2021 - 01/2022   *Beirut, Lebanon*

Achievements/Tasks

- Learned about all aircraft systems and how they work for the Airbus a320 family of aircrafts such as the various hydraulics systems, electronics system, engine systems, landing gears, navigation, flight controls, and auto flight systems.
- Had a first hand look on the procedures and tasks that engineers undergo to safely maintain an aircraft following proper safety regulations and standards such as landing gear and tire maintenance, crack and corrosion detection, instrument calibration, and seating maintenance.

Research Assistant
American University of Beirut

12/2021 - Present   *Beirut, Lebanon*

Achievements/Tasks

- Undergoing research with a professor on 3D Printed Honeycomb Structures.

Contact : Mohammad S Harb - (Info Upon Request)

ORGANIZATIONS

American University of Beirut Robotics Club (09/2021 - Present)
Secretary Cabinet Member

American Society of Mechanical Engineers (09/2021 - Present)
Subcabinet Member in the Competition Team

Lebanese Aerospace and Automotive Society (09/2019 - Present)
Club Member

Students for Sustainable Energy for All (09/2021 - Present)
Club Member

SKILLS

MATLAB/Simulink · Inventor · Creo · Python · LabVIEW · AutoCAD · C++ · Mircrosoft Office · Arduino · ANSYS (Basic) · ROS (Basic)

PERSONAL PROJECTS

Attended NXP Gazebo Summer Camp - Autonomous Vehicles Project (07/2021 - 09/2021)
- Succeeded in making a car follow a racetrack and complete multiple laps without any issues in a gazebo simulation.
- Achieved faster lap times with the same the car on the same track.
- Utilized Apriltags to detect obstacles and act accordingly (Ex: Stopping at a stop sign or maneuvering past an obstacle).
- Accomplished making the car stop at an intersection and then take a right turn.

Thermocouple and Motor Circuit – Mechanical Engineering Project (04/2021 - 05/2021)
- Assembled a circuit that is capable of reading the temperature in a room which would then cause a motor to spin in a certain duty cycle and LEDs to light up based on the temperature reading.
- Programmed the circuit to carry out the tasks stated above using LabView and accomplished reading analog signals coming from sensors using a myDAQ (Data Acquisition Card).

Object Transportation Mechanism – CAD Project (04/2021 - 05/2021)
- Created a series of mechanisms that move objects a certain path while also correcting their orientation if needed using Autodesk Inventor.
- Used dynamic simulation to simulate the transportation process.
- Conducted stress analysis to see if the system of mechanisms works properly.

Miniature Racecar - Manufacturing Process Project (10/2021 - 12/2021)
- Used drills, lathe machines and milling machines to create parts for a miniature Formula 1 style car (Parts such as front wing, rear wing, body, wheels, etc.).

CERTIFICATES

"Robotics: Aerial Robotics" from Coursera and given by The University of Pennsylvania (05/2020 - 06/2020)

"Robotics: Mobility" from Coursera and given by The University of Pennsylvania (05/2020 - 06/2020)

Certificate of Completion for the Game Academy Course (Game Design) given by Khaddit Beirut (05/2021 - 07/2021)

LANGUAGES

Arabic
Native or Bilingual Proficiency

English
Native or Bilingual Proficiency