Fadi Kaafarani

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Passionate Mechatronics Engineering undergraduate, looking forward to build knowledge and experience. Highly motivated and willing to get in the field of robotics and artificial intelligence.

Education:

- Baccalaureate Degree at **Amjad High School**   *2005-2019*

  General Sciences

- Bachelor of Engineering at **Lebanese American University**   *Sept.2019 – Current*

  BE in Mechatronics Engineering

Experience:

- Coding Tutor at **Geek Express**   *March 2021 – Current*

  Working on enhancing software skills for younger generation (between 5 and 16 years old) by teaching them programming languages such as HTML, CSS, JavaScript and Python in the web development track, and other programming languages.

- Undergraduate Research on Quadruped Robot   *February 2022 – Current*

  Using Computer Vision and Machine Learning to recognize the material properties of the surroundings around a quadruped robot. This is used to link this information with the locomotion part of the Quadruped Robot. During the project, we built our own dataset, where we collected data for all the required materials, in addition to their friction coefficients. We also built our own model, to train and test.

- Internship at **Oculi**   *June - August 2022*

  Fulfilled my training as a software engineering intern and was exposed to various subjects in the Applications team:
  - Computer Vision Scripts
  - Model Training and Testing
  - Data Labeling

  In this internship, I implemented and trained a model for face detection using the HOG algorithm, and it was tested over different faces under different environments and conditions.

Projects:

- Mobile Crane Truck using SolidWorks   *November 2021*
- Mechatronics System Design projects using Raspberry Pi (here is the demo) *December 2021*
- Circuit Controller for a smart public toilet   *December 2021*
- Smart irrigation system on LabView   *April 2021*
- Machine learning model to detect hand-written characters(OCR)   *October 2022*

Skills:

- Programming Skills: Python, HTML, CSS, Java
- Certified Full Stack Web Developer   *February 2021*
- Certified SolidWorks Mechanical Designer   *October 2021*
- Experience in myRIO, Arduino, and Raspberry Pi   *April 2021*
- Certified in Machine Learning with Python   *April 2022*
- Languages: Arabic (fluent), English (fluent)

Activities:

- Member in the Google Developer Student Club
- Member in the Robotics Club