

Chihabeddin Azzam

Mechatronics Engineering Undergraduate | LAU

✉ shihab.azzam27@gmail.com

☎ 0096181520450




📍 Tripoli, Lebanon

🌐 linkedin.com/in/chihabeddin-azzam


Profile

Dedicated senior mechatronics engineering student with a solid academic background and practical skills in designing and implementing mechatronic systems. Eager to apply my integrated knowledge of mechanical, electrical, and software engineering to contribute effectively to innovative projects during an internship.

Professional Experience

2024/11 – present Remote	Research Intern <i>Programmable matter</i>  <ul style="list-style-type: none">Researching algorithmic and machine learning methods for the self reconfiguration problem of programmable matterResearching physical constraints for the self reconfiguration problemdeveloping a reinforcement learning solution for autonomus self reconfiguration
2024/08 – 2024/12 Munich, Germany	Computer Vision Intern <i>BMW AG</i>  <ul style="list-style-type: none">Researched models for synthetic texture generation for 3d meshesResearched image translation and generation methods for texture agingResearched object detection models for defect detection in industrial settingsAugmented the existing SORDI dataset using new synthetic data generation methodsDeveloped complete and robust data generation pipelines using the researched models
2024/01 – 2024/03 Beirut, Lebanon	Robotics and AI <i>Inmind.ai</i>  <ul style="list-style-type: none">Developed proficiency in C++ programming language, specializing in robotics applicationsUtilized CMake and ROS2 extensively for project development and management in the field of roboticsApplied machine learning techniques to train and deploy models for various tasksImplemented computer vision solutions using PyTorch, particularly focusing on Convolutional Neural Networks (CNNs)exported models to ONNX format, developed APIs, and Dockerized code for efficient deployment

Projects

2024/03 – 2024/05	AutoOrganize VisionArm <ul style="list-style-type: none">A robotic arm moving laterally on a rail equipped with computer vision4 degrees of freedom. 3 degrees of freedom robotic arm and 1 degree of freedom for a moving railYOLOv5 computer vision model with 92% accuracyAfter successfully detecting the object the arm would pick it up and then place it in its respective boxEnded up scoring 15% higher than the class average
2023/10 – 2023/12	Robotic disaster relief team  <ul style="list-style-type: none">A team formed of a drone acting as the navigator and an on-ground rover acting as the aid delivery methodA computer vision algorithm (YOLOv8) was utilized to process the live footage coming from the drone and transform it into a 2D mazeA path optimization algorithm, namely Dijkstra, was used to create the solution for the generated mazeThe solution was then sent by Bluetooth to the on-ground rover to deliver first aidThe rover was built from scratch around the Arduino UNO R3Ended up 27.25% higher than the class average

Education

2021/09 – present Byblos, Lebanon	Mechatronics Engineering <i>Lebanese American University</i> CGPA: 3.54
--------------------------------------	--

Skills

Technical Skills Python, Pytorch, Tesnsorflow, Java, C++, Docker, ROS2, SQL, Isaac sim, diffusion models, LLMs, Langchain	Soft Skills Team Leading, Adaptability, Analytical Thinking
---	---

Languages

- Arabic
- English