FATIMA GHADIEH

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EDUCATION

American University of Beirut (AUB)   **September 2019 - May 2023**
B.E. in Electrical & Computer Engineering   CGPA: 4.0 - Dean's Honor List
Focus in Machine Learning, Robotics, & Control Systems. Minor in Economics

EXPERIENCE

Final Year Project, AUB   **September - Present, 2022**
HMI & Shared Control for Autonomous Vehicles
· Analyzing literature and standards related to HMIs to develop efficient display interfaces that improve control handover between a vehicle and the driver.
· Using CARLA simulator to compile a dataset for a stop & go scenario to train a driver intention recognition model.
· Developing, testing, and validating the model while also working on additional driver intention recognition features.

Adaptive Systems Laboratory, EPFL   **July - September, 2022**
E3 Research Intern (2% admission rate)
· Joined the ASL lab at EPFL as part of its *Excellence in Engineering Fellowship Program.*
· Worked on a project in Multi-Agent Reinforcement Learning within POMDPs.
· Simulated, tested and rendered multiple algorithms in a grid world scenario using Python where agents aim to track an HMM moving target using the A-T-C method.
· Assisted my supervisor in extending his paper on Hidden Markov Modeling over Graphs.

Al-Ghurair Hub in Digital Learning at MSFEA, AUB   **January - Present, 2022**
Data Analyst
· Tracking data regarding the performance of 250+ students taking EECE 230X "Introduction to Computation and Programming" that was being offered for the first time in a mixed-learning format.
· Managing and coordinating with a team of 14 coding coaches who were conducting office hours and labs.
· Conducting surveys and providing calculated advice on how we can improve the delivery of the course in order to ensure a smooth student experience.
· Performing extensive statistical analysis and preparing bi/weekly reports regarding course performance.

PROJECTS

Controller for Autonomous Ground Vehicles
Designing a controller to control the dynamics of an autonomous ground vehicle.
AUBot: A Chatbot for AUB students FAQs
Developed a Deep Neural Network based chatbot that targets FAQs by AUB students.
Facebook Group Parsing Tool using Selenium & Beautiful Soup
Built a web parsing tool that collects data from an AUB Facebook group in order to train the aforementioned chatbot.

ACHIEVEMENTS

Beirut AI Agri-Hackathon Finalist, Beirut AI & BeryTech
MENA Hackathon Winner, Tamkeen Bahrain & Amazon Web Services
MEPI-TLS Gender Scholarship Recipient, United States Middle East Partnership Initiative

LEADERSHIP POSITIONS

Ghurair Hub in Digital Learning at MSFEA, AUB   **June - December, 2021**
Digital Outreach Volunteer

· Assisted in the preparation of a cutting-edge online certification program in Computer Science that makes coding more accessible in the Arab World.

· Fixed audio issues, video transcripts & translated them into Arabic in order to eliminate the language barrier that might face some students in the target group of the program.

TECHNICAL SKILLS

- C/C++
- Python
- Reinforcement Learning
- CARLA
- Selenium
- Tensorflow
- Un/Supervised Learning
- OpenCV
- MATLAB