

NOUR EL SEMRANI

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EDUCATION

Bachelor of Engineering in Electrical & Computer Engineering Minor in Pure Mathematics Track in Control and Robotics American University of Beirut, Beirut, Lebanon.	Fall 2022 - Expected Spring 2026
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SKILLS AND INTERESTS

Skills	Optimization, Data Science, Full-Stack Development, Computer Vision .
Interests	Human Centered UI/UX Design, Neurodiversity Focused Design.
Softwares	ANSYS, Solidworks, LabVIEW, Figma, Trello, JIRA, AWS MATLAB, Simulink.
Programming Languages	Python (pandas, scikit-learn, TensorFlow, langchain), Swift, SQL, Git/GitHub, Arduino, C++, ROS2, Node.js, React
Languages	English (band 8 overall IELTS Academic), French (CEFR B2), Arabic (Native).

WORK EXPERIENCES

AUB Makerspace Red Room - Junior Engineer Designer and Innovator <i>3D Printing Engineer</i>	October 2023 - Ongoing
<ul style="list-style-type: none">· Collaboration with teams to design, prototype, and refine projects using FDM and SLA printing.· Instruction of workshops, lectures, and training sessions on additive manufacturing and 3D printing.· Training volunteers in Red Room protocols, safety procedures, and equipment usage.	

VOLUNTEER EXPERIENCES

AWS Full-Stack Bootcamp Volunteer <i>Volunteer Mentor</i>	May 2025 <i>WIExAWS</i>
<ul style="list-style-type: none">· Mentored 40+ students over a 3-day intensive workshop, guiding them through building a Pokémon-themed full-stack app with React and AWS (Amplify, Lambda, API Gateway, DynamoDB).· Reviewed and debugged participants' code, introduced CI/CD and Infrastructure-as-Code concepts (CloudFormation), and ran hands-on sessions on Cloud9, IAM, and S3 hosting.	

PROJECTS

Digital Twins <i>Research Project</i>	January 2025 - Ongoing
<ul style="list-style-type: none">· Development of a 3D point cloud segmentation and classification pipeline for robotic perception tasks.· Created dataset and trained a model to perform real-time 6D pose estimation.	
Robust Solutions: Where Black and White Swans Are Leveled, <i>Research Project</i>	August 2024 - Ongoing
<ul style="list-style-type: none">· Designed and implemented estimation methodologies to solve statistical challenges where the normality does not hold.· Application of optimization algorithms on regression estimation achieving a MSE of less than 0.001 %.	
HealthMarks for HealthKit, <i>Hackathon Submission</i>	April 2024
<ul style="list-style-type: none">· Developed an AI-powered health monitoring app integrating Apple HealthKit for detecting predisposition to disease· Built and validated predictive models achieving 90% accuracy for heart disease and 75% for diabetes.· Programmed the WatchOS application using Swift, enabling real-time health monitoring and Apple Watch demo functionality.	

Cancer Connect: Empowering Cancer Patients and Survivors,
Project as a part of Amazon Web Services Industry Program

August 2023 - October 2023

- Development of wire-frames and interactive prototypes using Figma.
- Collaboration with front-end developers to ensure design functionality and alignment.
- Development of a cohesive brand identity and tone of voice to resonate with target users.
- Prioritization of features by deciding which to include or omit based on user needs and project goals.

AWARDS/CERTIFICATIONS

WIExAWS Amazon Industry Program - First Place	October 2023
IEEE-EMBS AI in Healthcare Hackathon - Second Place	April 2024
IDEAS Makerfair 2024 Best Stand Award	April 2024
IDEAS Makerfair 2025 Best Exhibition by Faculty Award	April 2025

POSITIONS OF RESPONSIBILITY

Engineering Student Society - Beirut 2023 Vice Chair	June 2025 - Ongoing
Students for Sustainable Energy for All - President	May 2025 - Ongoing
Engineering Student Society - Beirut 2023: Project 1 - Project Manager	January 2025 - May 2025
Students for Sustainable Energy for All - Communications	May 2024 - May 2025
Students for Sustainable Energy for All - Sustainability Team Lead	September 2023 - May 2024
Outlook Campus Newspaper - Technology Junior Editor	November 2022 - May 2023
IEEE AUB - Marketing Officer	September 2022 - May 2023