Batoul Shourbaji *Electrical and Computer Engineer*

📍 Rachid Nakhle Street, Beirut, Lebanon   ✉ bms25@mail.aub.edu   📞 +961 81 790 218

in https://www.linkedin.com/in/batoul-shourbaji/

Education

09.2023 – 01.2024 Bern, Switzerland	**Master of Science in Medical Engineering (Electronics Track) - DISCONTINUED,** Universiry of Bern
08.2019 – 06.2023 Beirut, Lebanon	**Bachelor of Engineering (BE) in Electrical and Computer Engineering,** American University of Beirut 84/100

Professional Experience

06.2022 – 09.2022 Bern, Switzerland	**Machine Learning Intern,** Cognitive Computational Neuroscience Group University of Bern - Swiss Institute for Translational and Entrepreneurial Medicine
08.2021 – 05.2023 Beirut, Lebanon	**Research Assistant,** EMpact Lab: Designing Antennas and RF systems for IoT Devices Department of Electrical and Computer Engineering - American University of Beirut

Awards and Scholarships

27.04.2023	**Dean's Award for Creative Achievement in Electrical and Computer Engineering for my Final Year Project:** **Novel Ultra-High Accuracy Sensor to Detect Nicotine Concentrations in Saliva**
08.2019	**Mastercard Foundation Full Scholarship for Undergraduate Education,** Mastercard Foundation One of the most competitive programs in the Middle East and Africa
10.2015	**Lebanese National Commission for UNESCO Competition Awardee,** UNESCO
08.2014	**Goethe Institute Scholarship for High School Students - Summer School in St.Andreasberg,** Goethe Institute

Languages

Arabic (Native Proficiency) ● **English** (Native Proficiency) ● **German** (Goethe-Zertifikat B1)

Projects

09.2022 – 05.2023	**Final Year Project: Novel Ultra-High Accuracy Sensor to Detect Nicotine Concentrations in Saliva**
04.2023 – 05.2023	**Computational Analysis of Conformal Antenna for Cardiac Pacemaker System**
02.2023 – 05.2023	**Comprehensive and Computational Study on CMOS-based Radar Designs**
01.2023 – 05.2023	**Computational Analysis of Meander Dipole Antenna for Wearable Devices**
09.2022 – 12.2022	**Implantable Transceiver Design for Biomedical Applications**
06.2022 – 08.2022	**Coma ML Project - Cognitive Computational Neuroscience Group,** Acquiring, cleaning and employing EEG data to study complementary roles of neural synchrony and complexity for indexing consciousness and chances of surviving acute coma
09.2022 – 12.2022	**Intrabody Communication: A Study on Using the Human Body as a Signal Transmission Medium**
02.2022 – 04.2022	**Computational Analysis of the Thermal Characteristics of Deep Brain Stimulation (DBS) System Electrodes**
09.2021 – 04.2022	**Ismaani: A Real-Time Arabic Sign Language Interpreter,** Leveraging computer vision to design a real time language interpreter that translates ArSL into written language to be displayed to the user as a text stream
11.2021	**Content Based Recommender System,** Algorithm that recommends items to user based on viewed/purchased items
09.2021 – 12.2021	**Control Systems Project: Position Controller for Glass Handling Robot**
10.2021	**Weather Prediction Model Using Convolutional Neural Networks (CNNs)**
02.2021	**Traffic Light Controller Using Arduino UNO**

Technical Skills

Linux, Windows, Python, C++, Java, MATLAB, CAD, Ansys HFSS, CST Studio, Keysight ADS, Digital Hardware Design, Microcontrollers, Comsol Multiphysics, SQL, Power BI, Tableau, Mircrosoft Office, Jupyter Notebook, Google Colab, VHDL, Deep Learning, Generative Models, Unsupervisded Learning, Reinforment Learning, Risk Assessment and Decision Making, Operations Management, Financial Accounting, Economic Principles, Risk and Sensitivity Analysis, Optimization

Volunteering

08.2022 – present	**Workshop Coordinator and Instructor,** Center for Civic Engagement and Community Service at the AUB
08.2020 – 06.2023	**Mentor,** Mastercard Foundation at AUB #Supporting new Mastercard Foundation scholars and AUB students
09.2020 – 05.2023	**Academic Tutor,** MMKN NGO #Delivering reinforcement sessions and offering students emotional support

Soft Skills

Problem Analysis, Organization, Drive, Educational Commitment, Innovation, Teamwork, Communication, Attention to Detail, Pressure Management