ANDREW GHAFARI

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EDUCATION

University of California San Diego   **Sep 2022 -**
Master of Science in Computer Science

American University of Beirut   **Aug 2018 - Jun 2022**
Bachelor of Engineering in Computer and Communications, CGPA 3.9/4

EXPERIENCE

Undergraduate Research Assistant — Python, Scikit learn, Mathematics   **Sep 2021 - Feb 2022**
American University of Beirut   Beirut, Lebanon

- Researched the Privacy funnel (PF) under Maximal Leakage problem that is closely connected to the information bottleneck problem, which has important applications in machine learning, privacy algorithms, and others.
- Used a greedy algorithm approach to develop a piece-wise linear graph representing leakage with respect to level of informativeness

Cyber Security Analyst Intern — Python, Scikit learn, dotpeek Jetbrains, IDA pro   **Jun 2021 - Oct 2021**
Teknologiia   Beirut, Lebanon

- Researched main cybersecurity concepts and applications: EDR, SIEM, IDS, IPS, ZTNA and SOAR.
- Led the design and implementation of decision tree models and other AI-based techniques to automate classification of malicious activities better and quicker.
- Researched debugging and reverse engineering techniques for ransomware using C#

Machine Learning Engineering Intern — Python, Scikit learn , Keras   **May 2021 - Aug 2021**
Millenium Softwares   Beirut, Lebanon

- Built different predictive models to analyze SMS traffic, detect and report anomalies found using traditional ML clustering, Isolation forests, Gaussian Mixtures Model and Deep Learning Long-Short-Term-Memory auto-encoders and compared their efficiencies.
- Implemented optimal model with continuous real-time detection and reporting on the EMS GUI.

Software Engineering Intern — React-Native   **Feb 2021 - May 2021**
Mentor Global Consultants   CA, USA

- Led the design and implementation of a fintech application linking banks to automotive sales companies.
- Provided the opportunity for customers to search available cars, contact respective owners, schedule in-person meetings and finance payments with partnered banks.

PROJECTS

- **Final Year Project - Smartwatch Applications for On-Body Communication.** In collaboration with UC-Irvine, my teammates and I developed a functional watch that can detect signals inputted through electrodes placed on the user's arm. — *Signal Processing, Microprocessors, Prototyping, Embedded systems, Testing*
- **Opticalc.** Hybrid recommender system that helps AUB students minimize the expected stress and workload levels in their semesters by recommending courses. — *Python, XGBoost, Random Forests*
- **AUB-Vax.** Fully functional Covid-19 vaccination mobile application for AUB students. — *Python, Django Framework - MVC, HTML, CSS, Javascript, SQLite*
- **LibMS.** Fully functional Library Management System with student-librarian privileges and secure verification components. — *Python, Django Framework - MVC, HTML, CSS, Javascript, SQLite*

SKILLS

Technical Skills: Object Oriented Programming, Python, C++, Java, Pytorch, Tensorflow, Sklearn, Keras, OpenCV.