ANDREW GHAFARI

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EDUCATION

University of California San Diego — **Sep 2022 - Dec 2023 (Expected)**
Master of Science in Computer Science
Relevant Courses: Principles of Artificial Intelligence Probabilistic Reasoning and Decision-Making, Recommender Systems and Web mining
Researching privacy-preserving machine learning under Privacy, Security and UX course

American University of Beirut — **Aug 2018 - Jun 2022**
Bachelor of Engineering in Computer and Communications Engineering, GPA 3.9/4
Relevant Courses: Intro to machine learning, Information theory, Data structures and algorithms, Information theory, Linear Algebra, Discrete Mathematics, Calculus III, Probability and Statistics, Economics and Econometrics.

EXPERIENCE

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

- Researched the Privacy Funnel under Maximal Leakage problem, about releasing information about a certain variable X, while minimizing the information revealed about a correlated random variable S.
- Used a greedy algorithm approach to develop a piece-wise linear graph representing information leakage with respect to level of informativeness

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

- Researched main cybersecurity concepts and applications: EDR, SIEM, IDS, IPS, ZTNA and SOAR.
- Researched and designed decision tree models and other AI-based techniques to automate classification of malicious activities better and quicker.

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

- Built different anomaly detection models to analyze SMS traffic.
- Used Isolation forests, traditional ML clustering 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 company's EMS GUI.

PROJECTS

- **Opticalc.** Designed and programmed a hybrid recommender system that allows student to input their desired courses for an upcoming semester, and outputs a grade from 0-100 representing the expected stress and workload level during that semester. *Python, XGBoost*
  Included a course-recommender feature to suggest new courses with their corresponding syllabi from the AUB catalogue for students with high stress and workload scores to try lowering them.
- **AUB-Vax.** Fully functional Covid-19 vaccination mobile application for AUB students.
  Implemented a reservation platform with first-come-first-served scheduling and authentication from medical personnel after completion of doses. — *Python, Django Framework - MVC, HTML, CSS, Javascript, SQLite*
- **LibMS.** Fully functional management system with student-librarian privileges and verification components.
  Features included: Book review, book reservation, booking extension and late fees management. — *Python, Django Framework - MVC, HTML, CSS, Javascript, SQLite, Agile Development*

SKILLS

Technical Skills: CNN, RNN, Pytorch, Tensorflow, Sklearn, Keras, Matplotlib, Object Oriented Programming, C++.