HENRY SABA

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WORK EXPERIENCE

Software Engineer and Data Scientist, Lazard (Data Analytics Group) **New York, NY**
September 2019 - Present
- Built event-driven, fully-automated ETL pipelines with Data Vault 2.0 hashing design pattern to orchestrate daily movement of over 200 million structured records from various data providers
- Built an ensemble clustering algorithm with HDBSCAN and K-Means to guide the firm in coordinating a carpool service for employees returning to work during the COVID-19 pandemic
- Integrating message queues with real-time processing abilities to enable communication across microservices

Software and Machine Learning Intern, Derq **Dubai, United Arab Emirates**
Derq uses AI and V2X technologies to predict and prevent road accidents in real-time   June - August 2018
- Reduced costs of in-vehicle system by 10% by developing Bluetooth application for in-vehicle system to alert for potential collision with vehicles/pedestrians
- Trained and assessed performance of object detection algorithms for usage in traffic safety solutions
- Configured deep learning models on embedded AI computing devices to boost prediction speed

Software Research Assistant, Vertically Integrated Projects - Robotic Musicianship **Atlanta, GA**
August 2016 - May 2017, August - December 2017
- Developed Python algorithms to identify properties of music such as consonance levels and major-minor tonality
- Implemented module for audio systems to autonomously decide what song to play based on various parameters
- Created interactive app that gathers training data from users for machine learning applications

Android Development Intern, WhiteBeard **Beirut, Lebanon**
June - August 2016
- Developed Android app that uses BLE beacons to register employee locations in office for productivity monitoring
- Improved development time with authentication package that automatically handles various social logins

EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY **Atlanta, GA**
B.S. Computer Science (Highest Honors)   August 2015 - May 2019
- GPA: 3.86
- Concentrations: Devices & Artificial Intelligence
- Certificate: Information Technology Management

HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY **Clear Water Bay, Hong Kong**
University Exchange Program   January - May 2018

OXFORD UNIVERSITY **Oxford, UK**
Faculty-Led Study Abroad Program   May - August 2017

PROJECTS

Automated Instagram Analytics Tool (Personal Project)
- Programmed automated Python tool for Instagram pages to gain unique insights on followers

Activity Alarm (Hardware Prototyping Class Project)
- Created alarm that goes off if a person does jumping jacks in front of a 22x22 grid of photoresistors
- Implemented multi-class neural network from scratch to aid in accurately classifying physical activity

Spam Detector for Tinder (Personal Project)
- Reduced fake Tinder accounts in Dubai with an automated object detection algorithm that uses transfer learning from TensorFlow model zoo to identify accounts with fraudulent characteristics in their images

RestoPresto (Database Management Class Project)
- Implemented general-purpose DBMS for university students to obtain live information about on-campus food trucks while simultaneously allowing food trucks to gain accurate data about consumer spending habits

SKILLS & INTERESTS

Programming Languages: Python, Java, C, C++, C#, Swift, MySQL, R, HTML/CSS/JavaScript
Technologies: PyTorch, Airflow, Docker, Prefect Flow, Pandas, Scikit-learn, Kubernetes, Flink, React, Scrapy
Online Courses: Machine Learning (Stanford University), Deep Learning for Coders (University of San Francisco), Complete Web Developer in 2020 (Udemy.com), Master Apache Airflow (Udemy.com), Docker and Kubernetes (Udemy.com), Entrepreneurship 101: Who is your customer? (MIT), Agile Project Management (lynda.com)