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# Rami Awar - https://ramiawar.github.io

#### **EDUCATION**

## American University of Beirut, Beirut, Lebanon

Degree:Bachelors in Computer and Communications Engineering-Minor in Mathematics Class of 2019 - GPA: 3.6

#### SKILLS

Full stack web development - Machine learning - Software Architecture - Operating Systems - Technical Artist

# **EXPERIENCE**

# BMW Logistics and Robotics, Munich, Germany - Full Stack Web Developer, Deep Learning Engineer

Internship: February 2019 - Present

- Architected and implemented an end-to-end web-based AI pipeline where
  users can label images, upload datasets, train models, visualize results,
  and perform inferences using specific models.
- Created a web server using Flask and gunicorn, complemented with a redis server acting as a message queue that assigns long running jobs to workers allowing for horizontal scalability and job monitoring.

# Saint Mary's Orthodox College, Beirut, Lebanon — Computer Science Teacher

Part-time job: August 2018 - February 2019 ( 2 school semesters )

• Taught two classes of secondary grade students basic javascript for visualizations using P5.js, simple electronics programming using Arduino, and basic AI principles through a genetic algorithms implementation.

# Anghami, Zalqa, Lebanon — Machine Learning Engineer

Internship: May 2018 - September 2018

- Auralized filters of a **deep convolutional-recurrent neural network** using state-of-art filter visualization techniques applied to audio input.
- Clustered artists, songs embeddings into similarity groups to automatically find genres from an audio signal.
- Created a novel playlist generation algorithm using generated artist embeddings

# **Projects and Activities**

# QuantInvest - Online investment management educational platform

Part-time project: September 2018 - Present

- Built a Flask-based web app that serves as a risk profiler, portfolio optimizer, and stock screener and explorer.
- Architected the backend which involves long jobs for calculating optimal portfolios and fetching stock data, as well as caching that data.
- Portfolio optimization performed using **mean-variance optimization** as well as **covariance matrix adaptation evolutionary strategies**(CMA-ES).

#### Autonomous Vision-Based Robot - Personal Project

Part-time project: September 2016 - March 2017

- Built a mobile robot that navigates using computer vision.
- Designed a computer vision-based lane follower and localization algorithm using OpenCV, python, and a Raspberry Pi controller.
- Documentation in the form of a detailed report available on https://ramiawar.github.io/projects/autonomous-vision-based-vehicle/

## PROGRAMMING LANGUAGES

```
Python - C++ - Dart - Javascript - Java - NoSQL - MySQL - Matlab - C - CSS - HTML5 - PHP - Bash
```

### KEY COURSEWORK

Data Structures - Algorithms Design and Analysis - Software Architecture - Introduction to Machine Learning - Data Mining - Computer Networks - Operating Systems - Computer Organization - Information Theory - Principles of Mathematical Analysis - Mobile Ad-hoc and Wireless Sensor Networking

# **VOLUNTEER EXPERIENCE**

- Projects Manager at AUB Robotics Club September 2017 February 2019
- AUB Robotics Club's Engineer Design Challenge 3.0 Event Head Organizer May 2017 February 2018
- TEDxAUB Organizer, web development team leader http://tedxaub.com -August 2015 - January 2017
- Web developer at Saily June 2015 August 2015
- TEDxBeirut Organizer September 2014

### **AWARDS**

- FEAA Sumo Robotics Competition: 1st place
- Dean's Honor List award (3)