## ALI AL-HAJJ

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#### COMPUTER AND COMMUNICATION ENGINEER

Results-driven Computer Engineer with a proactive mindset, dedicated to overcoming challenges and optimizing telecommunications solutions. Adept at fostering innovative approaches and ensuring optimal performance in dynamic environments

#### STRENGTHS AND EXPERTISE

Python/Java/SQL/C/C++/C# Hadoop/Spark/Kafka MySQL/ PostgreSQL HTML5/CSS/AngularJS/JS

Git/ Github TensorFlow/ Keras / Scikit-Learn Communication/ Collaboration Pandas/ NumPy/ Matplotlib Bash/ Shell Grafana/ PowerBI

Problem-Solving **Project Management** 

#### PROFESSIONAL EXPERIENCE

January 2020 - Present **Booking Basics** 

#### Supervisor of Computer Science Department

Supervise students with their Projects through online sessions.

#### Accomplishments:

- Guide and mentor students in the development and execution of their computer science projects.
- Provide online support and feedback to students to enhance their learning experience and project
- Ensure projects meet academic standards and deadlines.
- · Foster a collaborative and innovative online environment to encourage student engagement and
- Facilitate virtual meetings and workshops to support student learning and project development.

#### March 2023 - October 2023 **Simplexity**

#### Research and Development (R&D) Engineering Intern

Selected to complete my final year project (FYP) during this internship, demonstrating the high level of trust and responsibility granted by the organization.

#### Accomplishments:

- Conducted data analysis on a hybrid energy solution comprising grid, generator, solar, and battery to detect and identify anomalies in the data, using statistical techniques.
- Leveraged LSTM (Long Short-Term Memory) neural networks to improve data gap-filling based on historical trends, thereby enhancing the performance of a hybrid solution. The LSTM architecture's ability to capture long-term dependencies enabled precise prediction and completion of missing data points.

# Spring Communication Data Engineering Intern

#### Accomplishments:

- Developed and implemented an advanced data scraping system using Python libraries such as BeautifulSoup, Scrapy, and Tweepy to systematically collect relevant information from Twitter for sentiment analysis.
- Utilized the extracted data with tools like Pandas and NLTK to enhance sentiment analysis
  projects, delivering critical insights that informed strategic business decisions.

#### **EDUCATION**

#### Lebanese University - Faculty of Engineering (branch III)

2018 - 2023

Computer and Communication Engineering

#### **LANGUAGES**

English: Full professional proficiency

Arabic: Native

French: Limited working proficiency

#### **PROJECTS**

### Anomaly Detection and Performance Analysis of Hybrid Energy Solutions Using Machine Learning (2023)

Performed in-depth data analysis on a hybrid energy system, incorporating grid, generator, solar, and battery elements, to isolate and identify anomalies. Implemented machine learning algorithms to enhance predictive accuracy, thereby improving overall system performance. The project has been successfully transitioned to a production-ready state.

#### Twitter Data Analysis Using Python (2022)

Conducted sentiment analysis on targeted Twitter user data, leveraging Python for data scraping and analytical processing.

#### GUI Matlab Application for AM/FM Modulation (2022)

Developed a MATLAB-based GUI application for AM/FM signal modulation. The application visualizes the message signal in both time and frequency domains and performs user-selected modulation (AM or FM). All modulation parameters, including the signal function, are user-configurable.

#### Face-Recognition App with Intrusion Detection (2020)

Engineered a face-recognition application with intrusion detection features using Python and OpenCV. The software is designed to identify unauthorized individuals and promptly notify the administrator.

References are available on request.