# Anas Muhammad

Vancouver, Canada

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Junior data scientist with experience developing machine learning and data-driven solutions through Python, TensorFlow and Microsoft Azure for image recognition, anomalous fault detection and trouble ticket automation.

## Work Experience \_\_\_\_\_

#### **Data Scientist & Machine Learning Engineer**

Dubai, United Arab Emirates

ETISALAT

July 2018 - July 2019

Largest telecommunication provider in the United Arab Emirates with over 41 billion USD market capitalization.

- Developed Autoencoders for Anomaly Detection after extensive data mining and wrangling to detect severe network faults (0.02% of raw fault alarms).
- Developed next best team assignment prediction model with 80% accuracy to automate trouble ticket resolution using Decision Trees, XGBoost and Random Forests.
- · Used NLP techniques and Support Vector Machines to classify severity of technical complains of free text data type, eliminating manual classification process of complaints.
- · Deduced suitable manual trouble tickets to be automated after data wrangling and data mining thus improving automation KPI by 30%.
- Developed fault type, root cause, and closure code prediction models with 85% accuracy to automate trouble ticket closures using Decision Trees, XGBoost and Random Forests.
- Delivered instructor based training to upskill various levels of engineers on Data Science and AI.

## **Machine Learning and Robotics Researcher**

Sharjah, United Arab Emirates

July 2018 - February 2019

AMERICAN UNIVERSITY OF SHARJAH

Ranked number one university in the world in terms of cultural diversity as per Times Higher Education.

- Published a research paper on deep learning based autonomous high voltage line inspection drone project.
- Developed a project involving deep learning with Keras and feature extraction to develop a dataset of 2,000 images for a particular facial expression.
- Extracted LBP, HOG and raw features for emotion recognition through neural networks and Support Vector Machine classifier.

## **Education**

#### **Master of Data Science**

Vancouver, Canada

University of British Columbia

August 2019 - Exp. June - 2020

• A 10 month accelerated program to equip students with skills necessary to work as professional data scientists.

### **BSc. Electrical Engineering**

Sharjah, United Arab Emirates

AMERICAN UNIVERSITY OF SHARJAH

2013 - 2017

- GPA: 3.55/4.0
- Scholarships: Dean's List, Chancellor's List and Merit Scholarship.
- Extracurricular: Men's Jiu Jitsu and Squash Team.

## Skills

**Programming** Python, R, C, Matlab, ŁTEX

Data Science Microsoft Azure, Data Analysis, Data Wrangling, Data Cleaning, Data Visualization, Feature Engineering, NLP, SQL, Hive Machine Learning Classification Models, Regression Models, Time Series Forecast Models, Validation Techniques, TensorFlow, Keras

**Visualization** altair, matplotlib, seaborn, plotly, cufflinks, ggplot, QlikView, Power BI

# Publication

#### **Robot 2019 - Fourth Iberian Robotics Conference**

FEUP, Portugal

FIRST AUTHOR OF: "AUTONOMOUS DRONE-BASED POWERLINE INSULATOR INSPECTION VIA DEEP LEARNING" - LINK

Nov. 2019

· Co-developed a drone to autonomously inspect and fly over modeled high voltage lines to aid in human safety and reduce maintenance cost by 70-80%.