

# Anas Muhammad

DATA SCIENTIST · MACHINE LEARNING ENGINEER

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*Emerging data scientist with experience in developing machine learning and data-driven solutions through Python, TensorFlow and Microsoft Azure*

## 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

AMERICAN UNIVERSITY OF SHARJAH

July 2018 - February 2019

*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,  $\LaTeX$

**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%.