TOLU OMOTUNDE || 919-579-4919 || Raleigh, NC

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Education

- **UDACITY AWS Cloud Architect**   **IN VIEW**
- **Certificate in Data Science and Analytics**   **GRADE: A+**
  University of North Carolina, Chapelhill, NC   *Sept. 19 - May. 20*
    – **Relevant Courses**: Machine Learning, Deep Learning, Big Data Analytics, Social Media Mining, Business Intelligence
- **Master of Science, Chemical Engineering**   **CGPA: 3.8/4.0**
  North Carolina State University, Raleigh, NC   *Aug. 18 - May. 20*
    – **Relevant Courses**: Process System Analysis and Control, Molecular and Process Simulation, Statistical Engineering
- **Bachelor of Engineering, Biosystems Engineering**   **CGPA: 3.5/4.0**
  University of Ilorin, Nigeria   *Sept. 12 – Oct. 17*

Work Experience

- **Dept. of Chemical Engineering, North Carolina State University**   Raleigh, NC
  Research Assistant   *Jan. 19 – Apr. 20*
    – Developed a novel catalyst and reactor network for Methane Dehydroaromatization (MDA) employing cheminformatics, statistical process control, experimental design and techniques.
    – Synthesized catalysts and characterized their physical and chemical properties using Labview, Process Eye, SEM, XRD, TEM, Gas Chromatography, Mass Spectrometry, TGA, HPLC, FTIR.

- **Nigerian Airspace Management Agency**   Lagos, Nigeria
  Data Analyst   *May 17 - July 18*
    – Implemented a novel approach to automate the query of complex data sets on both domestic and international travel routes achieving a 20% improvement in data cleaning and wrangling steps.
    – Developed algorithms based on statistical analysis and predictive data modeling to show relationships, trends, forecast and derive actionable business insights to meet profit goals.

- **Caverton Helicopters**   Lagos, Nigeria
  Statistician   *Mar. 13 – Aug. 15*
    – Developed Anomaly Detection models and performed Root Cause Analysis to reduce downtime for 20 helicopters in accordance with the IATA and NCAA guidelines.
    – Contributed in development of a reporting dashboard that monitored maintenance information for the helicopters on the cloud and put in aircraft part requisitions via SAP

Programming Skills

Languages: Python, R, SAS, Java, JavaScript (D3.js, Leaflet.js), Matlab, Tensorflow, C++, VBA, HTML5, CSS3, SQL, Git
Applications & Databases: Tableau, AWS, MongoDB, PostgresSQL, MYSQL, Hadoop, Github, RestAPIs

Projects

2020 Built a Multi-Availabilty Zone, Multi-Region Database on AWS with high recovery, resilience & durability
2020 Custom Object Detection with Web Scraping using YoloV3, Tensorflow, OpenCV and Beautiful Soup.
2020 World Human Trafficking Analysis using 2018 TIP Report and ACLED Dataset with FLASK, and D3.js
    - Built a webpage to show the relationship between human trafficking activities and country demographics.
2019 Music Generation with Generative Adversarial Networks for LAKH MIDI dataset using 4 different GANs like FCN-RNN and C-RNN GANs to generate melodious frequencies.
2019 Music Recommender System for Implicit Feedback Dataset using Collaborative Filtering and Apache Spark.
2019 Molecular Dynamics Simulation of Water Methanol Mixture using NC State HPC Cluster and LAMMPS