Damilola Dada, *Ph.D Candidate*

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WORK EXPERIENCE

Graduate Research Assistant September 2020 – Present
Florida Agricultural & Mechanical University

- Automate Data collection through creation of statistical models and new experimental framework
- Computational modeling and Artificial Intelligence/Machine Learning for materials design
- Correlate similar data to find actionable results from density functional theory (DFT) calculation results
- Design computational models to illustrate complex chemical reactivity and density of state plots using Python and P4VASP
- Model, develop, and analyze nanocrystal structures using data-driven VESTA software.

Graduate Research Assistant January 2019 – August 2020
University of Louisiana at Lafayette

- Utilized Python to perform data processing and analysis of acoustic frequency-amplitude data to predict elastic properties using statistical models
- Implemented the Levenberg-Marquardt algorithm to solve minimization problems in least squares curve fitting.
- Used the machine learning algorithms to select features, create, and optimize classifiers in the acoustic data
- Simulated variety of 3D printed metallic alloys, layer by layer based on Computer Aided Design by carrying out preprocessing of structured and unstructured data.

Graduate Teaching Assistant August 2018 – December 2018
University of Louisiana at Lafayette

- Guided 25 students in advanced laboratory research and technology experimentation
- Taught electrical and electronics undergraduate level courses
- Independently developed teaching materials, such as syllabi, visual aids, supplementary notes, and course websites.

Entry-Level Data Analyst November 2015 - July 2018
Alegria Recyclers Ltd

- Constructed operational reporting in Tableau to improve scheduling contractors, saving #2,090,000 in the annual budget
- Implemented a long-term pricing experiment that improved customer lifetime value by 23%
- Identified process improvements through client data analysis, which led to an increase in profit by 8%
- Analyzed anonymous employee performance reviews to identify regular areas for improvement for the company engineers leading to actionable feedback for over 100 engineers
- Built out the data and reporting infrastructure from scratch using Tableau and SAS to provide real-time insights into the product, marketing funnels and business KPIs.

PROJECTS

- **Data Analysis and Visualization**
  - Applied Analytical reasoning facilitated by interactive visual interfaces in Tableau and R, for exploratory and predictive analysis and visualization of AUTO dataset downloaded from an open-source database. Used Clustering techniques in R and Python to predict dependent variables in the dataset.
  - Created a locally hosted Shiny app to create a scatterplot of a selected dataset, where the user can choose which features to display on each axis via dropdown menus.

CERTIFICATIONS

- IBM Professional Certificate in Data Science: R and Python Programming; *Getting and Cleaning Data.*
- Data Science with Python Course; Hands-on Data Science 2021: NumPy, Pandas, Matplotlib, Scikit-Learn, Web-Scraping, Machine Learning, Pyspark, Statistics.

SKILLS

Programming: Python, MATLAB, R, SQL
Data Preprocessing: pandas, numpy, dplyr
Stats/ML Ecosystems: statsmodels, scikit-learn
Data Visualization: Tableau, Matplotlib, Plotly Seaborn, VESTA, ggplot2
Machine Learning: Regression, Classification, Clustering, Neural Networks

EDUCATION

Florida Agricultural & Mechanical University (FAMU). Tallahassee, Florida
Doctor of Philosophy (PhD): *Physics (**Materials and Data Science**)* Expected May 2023
Research Focus: Modeling, Big-Data Analysis and Simulation using Stampede2 cluster at Texas Advanced Computing Cluster (TACC), VESTA for visualization, on quantum plasmonics of semiconductors.

- GPA: **3.8/4.0**

University of Louisiana Louisiana, Lafayette
Master of Science*: Physics (**Materials Science**).* August 2020
Relevant Coursework: Data Analysis and Visualization, Experimental Design, Computational Math, Computational Physics (Linear Algebra)

- GPA: **3.5/4.0**

Federal University of Technology Ondo, Nigeria
Bachelor of Science & Technology*: Physics (**Electronics**).* October 2015
Research Focus: Used **Statistical and Machine Learning algorithms** to propose a possible **prediction** of geomagnetic storm in the Ionosphere by performing exploratory and predictive analysis on the Total electron content and Disturbance storm time Dataset.

- GPA: **3.36/4.0**

PUBLICATIONS

- Petculescu, G.; **Dada, D.**; Deoli. N.; Raush, J. **Resonant Ultrasound Applied to Additively Manufactured Alloys**. *2021 IEEE International Ultrasonics Symposium (IUS)*; doi: 10.1109/IUS52206.2021.9593521.
- **Dada, D.**; Kurian, G.; and Mochena, M. **Quantum Plasmonics of Few Electrons in Strongly Confined Doped Semiconducting Oxide: A DFT+U Study of ZnGaO.** (Manuscript in preparation)