OPEYEMI CHRISTIANA AJAYI

oajayi@andrew.cmu.edu
Opeyemi Christiana Ajayi

SUMMARY

An adept artificial intelligence engineering graduate with 3+ years of professional experience in software engineering and data science, interested in applying critical thinking skills and experience toward research advancements and sustainability.

EDUCATIONAL BACKGROUND

Master of Science in Engineering Artificial Intelligence   **QPA:3.14/4.00**
Carnegie Mellon University, Africa
Specialization: Data Science, Machine Learning, Artificial Intelligence, and Deep Learning

Relevant Coursework:
Data Inference, and Applied Machine Learning, Data Analytics, Big Data Science, Artificial Intelligence Systems Designs, Applied Stochastic Processes, Programming for Problem Solving

Bachelor of Engineering in Electrical and Electronic Engineering
Osun State University, Nigeria
Specialization: Control and Power Systems Engineering
Senior Research Project: Artificial Intelligence (Non-dominated Genetic Sorting Algorithms-III) for Solving Multi-Objective Optimal Power Dispatch Problem.
Award: Best Graduating Student in Electrical and Electronic Engineering **GPA:3.82/4.00(Top 1%)**
Relevant Coursework:
C/C++ Programming Language, Probability and Stochastic Process, Non-Linear Systems Control, Data Structures and Algorithms, Energy Utilizations, Power Systems, and Control Engineering.

PROFESSIONAL EXPERIENCE

Carnegie Mellon University, Africa   **Software Developer Intern**   **July 2022 – Present**
● **Designed** open-source database solutions for IoT devices, using SQL and Apache frameworks solutions.
● Designed interactive visualizations of large research **OpenPMU** datasets using open-source tools.

Carnegie Mellon University, Africa   **Data Scientist**   **Aug 2021- May 2022**
● **Analyzed** large datasets from multiple sources using python tools and Excel to deliver actionable insights using storytelling data analysis skills, increased student yield, and assessment processes.

Osun State University, Nigeria   **Graduate Teaching Assistant**   **Feb 2020 – July 2021**
● **Designed** and taught newly introduced curriculum lecture notes, and proctored exams, held tutorials and recitations, and graded students' assignments, thesis reports, and presentations.

Coralpay Technology Nigeria, Limited   **Software Engineering Intern**   **July 2018 – Mar 2019**
●**Collaborated** and deployed open-source payment solutions using Node.js, ReactJS, and ASP.NET MVC.

EXTRACURRICULAR ACTIVITIES

● Led Anti-COVID team, Carnegie Mellon University, Africa (2021-present)
● Member, International Guild team, Carnegie Mellon University, Africa (2021-present)
● Sustainable development facilitator, United Nations (2018-present)

SKILLS

●Programming: Intermediate Python (Hugging face, NLTK, Numpy, Sklearn,Pytorch, TensorFlow, Keras, Pandas), Linux, Java, C++/C#, Dash-plotly, Web API Technology,pyspark, SQL database, Google Colab
● Software: Microsoft Excel, Tableau, PowerBi, ArcGis, QGIS, Web API Technology, Apache Kafka, GitLab.

PROJECTS
- Data Analysis and Exploratory Data Analysis and Visualizations Projects.
- Geospatial data Analysis for Mini-Grid energy consumption Clustering and forecasting
- Fund Raising Data Analysis (Visualization using Tableau, Microsoft PowerBi)
- Use of Weather (Temperature) Data and Multivariate Linear Regression model to forecast Energy Consumption.
- Comparison of Autoregressive Moving Average Model Performance to Persistence Benchmark Forecast for Wind Power Generation Variability to ensure Power Demand and Supply Balance. ● Use of Machine Learning model and Ireland Smart Grid Intraday Demand Data to forecast Energy demand.
- Data Analytics Tools: Quandl, Satellite Data raster file processing (ArcGIS), QGIS
- Python: OOP concepts (SkLearn, Scipy, Matplotlib, Seaborn, Numpy, Pytorch, Plotly, Dash)
- Machine Learning Techniques: K- Nearest Neighbour, Support Vector Machine, Linear Regression, Random Forest, Quadratic Model, LassoLars, AutoRegressive Moving Average e.t.c

INTEREST AND HONORS
- **Dean of Faculty of Engineering Scholarship**, Carnegie Mellon University, Africa (June 2021-present)
- Prof. D.K Olukoya, **First-Class Award** of Academic Excellence (2019)
- Dr. (Mrs) Folorunsho Alakija, **Chancellor Best Graduating Student Award** of Excellence (2019)
- **Departmental Scholarship**, Engr. Tunde Ponnle Scholarship Award of Academic Excellence (2016)

RESEARCH PUBLICATIONS
- Oluwadara Adedeji, Peter Owoade, **Opeyemi Ajayi**, Olayiwola Arowolo ,Ankit Parag Shah , Bhiksha Raj , Rita Singh: **Image Augmentation on Satellite Images**. IEEE International Conference on Acoustics, Speech, and Signal Processing. To be submitted. 2023
- Paul Ewuzie, , Peter Owoade, **Opeyemi Ajayi**, Moayad Elamin, Biyabani Azzizudin: **Textual Inversion Using Stable Diffusion**. IEEE AFRICON. To be Submitted, 2023
- **Opeyemi Ajayi**, Peter Owoade, Samiratu Ntohsi, Kelvin Kamande,Charles Wiecha: Improving Mini-Grid Refinancing using Spatio-temporal Data. IEEE International Conference on Acoustics, Speech, and Signal Processing. To be Submitted, 2023
- **Opeyemi Ajayi**, Alawode Kehinde: Artificial Intelligence (Non-dominated Genetic Sorting Algorithms-III) for Solving Multi-Objective Optimal Power Dispatch Problem. Under Review, 2023