

Ayorinde Olanipekun

MACHINE LEARNING RESEARCHER · DATA SCIENTIST

Johannesburg, South Africa

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“Getting insight from data.”

Summary

An experienced Machine learning Researcher and Data Scientist with more than 5 years experience. Worked on applying Machine learning and data analytics in solving real life problems and also solving academic research problems. I have a PhD with specialization in application of Data Science and Machine Learning to Engineering and real life problems. I have built and deployed predictive models using machine learning algorithms that have helped solve business problems in the area of finance, digital marketing, research, and agriculture.

Skills

Programming Python, JavaScript, SQL, Matlab, Latex

Tools/Frameworks

TensorFlow, Dockers, Flask, Heroku, Streamlit, AWS, GCP, Git, Spark, Keras, scikit-learn, Google BigQuery, Google Analytics, Vscod, Jenkins, React, Node.js, Google Data studio, Fivetran, Gitlab, Jira, CI/CD, Linux

Work Experience

Projects

Johannesburg

MACHINE LEARNING PROJECTS+ MLOPS

February. 2020-till date

- Built machine learning API using flask, REST API
- Built an amazon product price web scrapping app
- Car price prediction app. I carried out an end to end machine learning project analysis on a Vehicle Used Cars datasets for price prediction. Involving data cleaning, machine learning modelling with random forest regression and deployment of the model using flask app
- Developed a Weight prediction app. The deployment was carried out on Flask, and AWS EC2. Create and remotely run python flask application, creating in EC2 instances and running Linux Ubuntu server as the operating system on AWS
- Developed Diabetes prediction app. An end to end machine learning modeling was carried out using kNN algorithm. The trained model was deployed using development tools like Node.js, React, and flask to deploy model to web app.
- Diabetes prediction app deployment on streamlit cloud.
- Machine learning prediction using different algorithms and optimization of the best performed model with hyper parameter tuning on a data, using pycaret open source low code python library. Upwork Freelance project
- Deployment of a python flask app on AWS ECS, using Gitlab Continuous integration and (CI/CD) Docker deployment. A python environment was set in using VS code, and later created a flask application, the docker file is later built, after which the container is run. The docker image was pushed to docker hub. A new repository was then push to Gitlab as a project. Local Gitlab runner was created. ECS cluster was created to link the image to the docker hub
- Training, testing, and prediction of model within BigQuery platform for BigQueryML. Predicting variables that have highest conversion rate for digital marketing data. Predicting bidding strategy that has lowest cost per conversion and lowest cost per click. Using standard SQL in BigQuery ML to develop machine learning models easily and to make more informed decisions in marketing campaigns
- Deployed Covid-19 rapid response virtual agent, trained to conduct screenings and answers frequently Covid-19 asked questions, helping people stayed informed and take proper steps. Created an agent in Diagflow and cloud function in google cloud for the deployment
- Technical Skills: Python, AWS, Google cloud, Google Big Query, CI/CD, Dockers, Kubernetes, Jira, Diagflow

Projects

Johannesburg

DATA SCIENCE +DATA ANALYTICS

July.2018-till date

- Carried out an exploratory data analysis, data cleaning, visualization for an client with python
- Web scrapping with Python using beautiful soup
- Loaded digital marketing data and tables from Fivetran, CM and DV 360 to BigQuery for structuring
- Execution of SQL Queries IN BigQuery on the tables to pull meaningful data from datasets. Exporting a subset of data into csv file and storing of the file into new cloud storage. Visualization of Structured data from BigQuery with Data studio and Python
- Pulling metrics and dimensions data from different sources (CM-360, and DV-360) and loading it to the destination of choice like BigQuery
- Technical Skills: Python, Google Data Studio, Google Big Query, CM-360, SQL, Jira

Projects

Johannesburg

TECHNICAL AND ACADEMIC WRITING

July, 2018-till date

- Wrote end-user Machine learning and data science API documentation
- Wrote technical articles on software development
- Content writing for IT companies
- Experience in Academic Research writing in the area of machine learning and data Science
- Wrote python script and putting it into documentation
- Technical Skills: Markdown, Dillinger online markdown editor, Overleaf, Latex Python, unsplash, word, Google Doc, excalidraw.com, dbdiagrams.io, Lucidchart.com, Adobe illustrator, Medium, Grammarly, Mendeley

Prototype Engineering Development Institute

Ilesa

SENIOR RESEARCH ENGINEER

2012-2019

- Designed and conducted accompanying instructional training on Matlab and Comsol Multiphysics
- Research and development of engineering materials

Publications

Elsevier

USA

DAT-IN-BRIEF

Oct. 20202

- Applying a Neural Network-Based Machine Learning to Laser-Welded Spark Plasma Sintered Steel: Predicting Vickers Micro-Hardness
- Data on assessment and exploratory statistical correlation data analysis of sintered Nd:YAG laser welded 2507 duplex stainless steel.
- Datasets on the measurement of mechanical properties of ferrite and austenite constitutive phases using nanoindentation and micro hardness technique.

Education

University of Johannesburg

Johannesburg, South Africa

PHD. IN MECHANICAL ENGINEERING

2018 - 2021

- Thesis: Using Machine Learning (ML) Algorithms to predict and Optimize the Mechanical properties of Laser welded Metallic alloy • Proposed the application of a hybrid Artificial Neural Network- Genetic Algorithm to predict mechanical properties from datasets obtained through experimental analysis. The ML models performs well for the predictions of mechanical properties.
- Tools: Tensorflow, Python, Matlab

University of Ibadan

Ibadan, Nigeria

MSC. IN MECHANICAL ENGINEERING

2012 - 2014

- Thesis: Built a Strain gauge Sensor, to collect data for mechanical stress and strain of material .
- Tools: Matlab

Summer Schools Attended

Machine learning summer school LXMLS at Instituto Superior Técnico (IST)

Lisbon, Portugal

MACHINE LEARNING SUMMER SCHOOL

Spring 2020

- Linear classifiers, and advanced topics, e.g. deep learning, reinforcement learning, was be covered.
- Research in machine learning and natural language processing.

Quantum Computing Summer School

Johannesburg, South Africa

QISKIT

Spring 2020

- An intensive school for quantum developers and scientist with knowledge to explore quantum applications.