YOUPELE MICHAEL

DATA SCIENTIST & FRONTEND ENGINEER

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SKILLS

- **PROGRAMMING LANGUAGES:** Python, JavaScript, SQL, R.
- **DATA SCIENCE:** Machine learning, deep learning, DeepMedic, nnU-Net, NLP, PyTorch, PyCaret, Keras, TensorFlow, Tableau, Google Cloud, Apache Spark, scikit-learn, pandas, ETL, BERT etc.
- **WEB DEVELOPMENT:** HTML, CSS, React.js, FastAPI, Express.js, Node.js, MongoDB, Photoshop, Netlify, Vercel etc.
- **SOFT SKILLS:** Leadership, teamwork, communication, critical-thinking, time-management, public speaking, presentation.
- **OTHERS:** Git, MS Excel, MS PowerPoint.

EXPERIENCE

DATA SCIENTIST, UNIKLINIK KOELN, KOELN, GERMANY.
APRIL 2020 — PRESENT

- Automize the cleaning, resampling, normalization, windowing etc, of datasets, thereby reducing the time spent on these activities.
- Built convolutional neural network (CNN) models using DeepMedic architectures that automatically identify and segment prostate cancer in given MRI sequences.
- Built CNN models using DeepMedic and nnU-Net framework that automatically identify and segment kidney tumours, kidney stones and phleboliths in 3D CT images. This aims to greatly reduce the time spent by physicians and radiologists in segmenting these images, especially when the dataset is big.

DATA SCIENTIST, WZL DER RWTH AACHEN UNIVERSITY, GERMANY
NOVEMBER 2019 — AUGUST 2020

- Collecting, cleaning and analysing structured and unstructured raw datasets from sensors installed in a fine blanking press system using different machine learning and data science techniques.
- Successfully developed a model that automatically analyses and visualises raw data from the sensors, thereby increasing time for interpretation of the datasets.
- Used different machine learning algorithms to determine the degree of influence each key performance indicator (feature) had on the label, proving whether the feature on the fine blanking dataset could be used to predict the label, finding the whether the data from the coil dataset has any relationship with the fine blanking dataset.
- Created a deep learning model using PyTorch that differentiates corrupt signals (in 2D images) from good ones and extract useful information from each group of datasets necessary for understanding the machines' behaviour during the fine blanking process.

DATA ANALYST/RESEARCH ASSISTANT, FORSCHUNGSZENTRUM JUELICH GMBH, JUELICH, GERMANY
JUNE 2019 — OCTOBER 2019

- Co-authored a scientific paper.
- Collated, cleaned, and analysed data associated with the production of storage cells.

- Built predictive models using various machine learning algorithms to predict the optimum voltage and current to produce nickel, aluminium and double layered storage cells.
- Successfully produced copper, double-layered gold storage cells, and aluminium storage cells for a CERN nuclear physics project.
- Measured the recombination of nuclear spin polarised hydrogen, deuterium and hydrogen-deuterium molecules on a double-layered gold storage cell.

COMPUTER SCIENCE TEACHER, RANTYA HIGH SCHOOL, JOS, NIGERIA.
OCTOBER 2016 — AUGUST 2017

- Successfully, restructured how computer science was taught to 9 - 13-year-old students, infusing more practical lesson in the curriculum.
- Started a computer club, in which I taught students programming using python.

PHOTOGRAPHER, 3RD DEGREE PHOTOGRAPHY, JOS, NIGERIA.
FEBRUARY 2016 — SEPTEMBER 2016

- Photographer and Photoeditor.

CORPS MEMBER,NATIONAL YOUTH SERVICE CORPS (NYSC), IYIN-EKITI, NIGERIA.
AUGUST 2014 — JULY 2015

- Voluntarily, lead a team of 17 members in carrying out two community awareness and development projects in Igede-Ekiti.
- Was involved in the education of junior high school students in Egirioke High School, Iyin-Ekiti. In which I taught mostly Basic Technology. Took courses on nation-building, entrepreneurship, management, and investment.
- Partook in paramilitary training organized by the Nigerian army.

WELDING ENGINEER, STEROCK COMPANY LIMITED, PORT HARCOURT, NIGERIA.
FEBRUARY 2013 — JUNE 2013

- Was involved in the fitting and welding of an oil and gas pipeline project.

MAINTENANCE ENGINEER(INTERN), ONNE, NIGERIA.
JUNE 2012 — DECEMBER 2012

- My duties were and not limited to daily preventive maintenance check on turbines and pumps, cleaning of gas turbine air filters with compressed air, pipe fitting, repair of pumps, and air compressors.

EDUCATION

MASTER OF SCIENCE IN NUCLEAR APPLICATION (MEDICAL PHYSICS MAJOR), AACHEN UNIVERSITY OF APPLIED SCIENCES, JUELICH, GERMANY.
FEBRUARY 2021

- Grade point average: 1.8 (German grading scale: minimum 5.0, maximum 1.0).
- Thesis title: Segmentation of CT Scans of Kidney Tumours, Kidney Stones, and Phleboliths using Convolutional Neural Network.
- Thesis grade: 1.3 (German grading scale: minimum 5.0, maximum 1.0).
- Key modules: Nuclear Imaging, Radionuclide Production and Development, Nuclear Medicine, Radiation Therapy, Applications of Accelerators, Nuclear Waste Management, Detection of Nuclear Radiation, Radiation Biology, Nuclear Physics, Nuclear Chemistry, Radioecology, Dosimetry of Incorporated Radionuclides.

- Co-authored a paper titled "Production of HD Molecules in Definite Hyperfine Substates".

BACHELOR OF MECHANICAL ENGINEERING (HONOURS), NIGER DELTA UNIVERSITY, WILBERFORCE ISLAND, NIGERIA.
MARCH 2014

- Grade point average: 3.63, upper second-class honours (Nigerian University grading scale: minimum 1.0, maximum 5.0).
- Thesis title: The Design of a Parabolic Trough Solar Collector Water Heater for Domestic Use.
- Thesis grade: B (Nigerian University grading scale: minimum E, maximum A).
- Key courses: Engineering Analysis, Thermodynamics, Metallurgy, Heat Transfer, Automobile Engineering, Mechanical Engineering Design, Material Science, Strength of Materials, Fluid Dynamics, Instrumentation and Measurement, and Maintenance Management.

DIPLOMA CERTIFICATE ON WELDING AND FABRICATION ENGINEERING, NAMIBIAN MARITIME AND FISHERIES INSTITUTE, WALVIS BAY, NAMIBIA.
SEPTEMBER 2011

- Grade: 78% (Grading scale: minimum 50%, maximum 100%).
- Additional Certificate Courses: First Aid, Firefighting, and Sea Survival.

PUBLICATION

Production of HD Molecules in Definite Hyperfine Substates

PROJECTS

For my data science and web development, visit youpele.com/projects

LANGUAGES

- **ENGLISH:** Speaking, listening and writing — fluent.
- **GERMAN:** Speaking — basic, listening — intermediate, writing — intermediate.

REFERENCES

PROF. DR. PHIL. NAT. CHRISTOPH LANGER
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