

# YOUPELE MICHAEL

## SOFTWARE DEVELOPER & DATA SCIENTIST

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### SKILLS

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

### RELEVANT EXPERIENCE

#### FRONTEND DEVELOPER, PHAINA GMBH, BIELEFELD, GERMANY.

##### JULY 2022 — PRESENT

- Responsible for maintaining of enterprise-scale frontend applications; continually improving code performance, readability, maintainability and adding new features to the applications.
- Responsible for translating clients' requests into new features and implementing same features with team members focusing on the backend.
- Responsible for the implementation of all UI/UX designs and changes.

#### SOFTWARE DEVELOPER, ARCHIMEDES NEW VENTURES GMBH, BIELEFELD, GERMANY.

##### AUGUST 2021 — JUNE 2022

- Migrated enterprise application from React.js to Next.js.
- Responsible for maintaining of enterprise-scale frontend applications, continually improving code performance, readability, maintainability and adding new features to the applications.
- Responsible for the implementation of all UI/UX designs in the SaaS applications.

#### DATA SCIENTIST, UNIKLINIK KOELN, KOELN, GERMANY.

##### APRIL 2020 — JULY 2021

- Automated the cleaning, resampling, normalization, windowing etc, of datasets, thereby reducing the time spent on these activities.
- Built CNN models using DeepMedic and nnU-Net framework that automatically identify and segment kidney tumours, kidney stones and phleboliths in 3D CT and prostate cancer in MRI 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, collating, 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.
- 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.

## **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).
- Co-authored a scientific paper.

## **PUBLICATION**

Production of HD Molecules in Definite Hyperfine Substates

## **PROJECTS**

For my data science and web development projects, visit [youpele.com/projects](https://youpele.com/projects)