YOUPELE MICHAEL

RUETSCHER STR. 165, AACHEN, GERMANY | +49 178 8272394 |
YOUPELEJED@GMAIL.COM | YOUPELE.COM | GITHUB

SKILLS

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

RELEVANT EXPERIENCE

DATA SCIENTIST, UNIKLINIK KOELN, KOELN, GERMANY.
APRIL 2020 — MARCH 2021

- 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 2020

- 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.

EDUCATION

MASTER OF SCIENCE IN NUCLEAR APPLICATION (MEDICAL PHYSICS MAJOR), FACHHOCHSCHULE AACHEN, 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).

PUBLICATION

Production of HD Molecules in Definite Hyperfine Substates

PROJECTS

Visit youpele.com/projects

REFERENCES

PROF. DR. PHIL. NAT. CHRISTOPH LANGER
Professor of Nuclear Physics
FH Aachen, Campus Jülich
Telephone: 0241/6009 53149
Email: langer@fh-aachen.de

DR. RALF W. ENGELS
Senior Researcher, Institute for Nuclear Physics
Forschungszentrum Jülich
Telephone: +49 2461 61-3618
Email: r.w.engels@fz-juelich.de