

# ANGEL EGWAOJE

Lagos, Nigeria

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## EDUCATION

### Afe Babalola University

B.Sc. Computer Science — First Class Honours (CGPA: 4.82 / 5.00)

Nov 2021 – Jun 2025

Nigeria

## RESEARCH INTERESTS

Artificial Intelligence, Deep Learning, Computer Vision, Medical Image Analysis, Explainable AI, Healthcare AI, Predictive Modeling

## RESEARCH PROJECTS

### RetinaLens AI: Diabetic Retinopathy Detection (EfficientNet)

Jan 2026 – Feb 2026

- Developed a deep learning system for 5-class diabetic retinopathy classification from retinal fundus images.
- Trained an EfficientNet-based convolutional neural network with preprocessing and augmentation pipeline.
- Achieved validation AUC 99.60%, accuracy 98.23%, and F1-score 98.27%.
- Deployed as an interactive web application for automated screening support.

### Brain Tumor Segmentation Using U-Net (BraTS Dataset)

Dec 2025 – Jan 2026

- Developed a deep learning system for pixel-level brain tumor segmentation from MRI scans including preprocessing, normalization, and mask alignment.
- Designed and trained a U-Net convolutional neural network for medical image segmentation.
- Achieved Dice score 91.47%, accuracy 99.54%, F1-score 91.47%, sensitivity 89.93%, and specificity 99.81%.
- Deployed the trained model as a Flask-based web application for interactive inference.

### Lung Cancer Detection Using ResNet-50 on CT Scans

Nov 2024 – Jun 2025

- Implemented a ResNet-50 convolutional neural network for automated lung cancer detection from CT scan slices with preprocessing and augmentation.
- Evaluated performance using medical classification metrics.
- Achieved 98.46% accuracy, 97.69% sensitivity, 99.22% specificity, and 98.45% F1-score.
- Deployed as a Flask web application for real-time image-based analysis.

## EXPERIENCE

### Nerdz Factory Foundation

AI Trainee Intern

Jul 2025 – Oct 2025

Lagos, Nigeria

- Worked on brain tumor detection using convolutional neural network models within a supervised research environment.
- Assisted in medical image preprocessing, experiment tracking, and evaluation workflows.
- Maintained structured experiment logs supporting reproducibility and collaborative model development.

### Tech4Dev

Programs Intern

Jul 2023 – Sep 2023

Lagos, Nigeria

- Analyzed survey data from 500+ applicants across five regions using Python and pandas.
- Identified a 30% digital skills gap through exploratory data analysis to support program planning decisions.

## TECHNICAL SKILLS

**Programming:** Python (advanced), Java, C++, HTML/CSS, JavaScript

**Machine Learning & Deep Learning:** PyTorch, TensorFlow, CNNs, U-Net, ResNet-50, EfficientNet, Transfer Learning

**Data Analysis & Tools:** NumPy, pandas, OpenCV, scikit-learn, Matplotlib, ONNX, Jupyter

**Deployment:** Flask, Web-based ML Applications, Git/GitHub

## AWARDS & ACTIVITIES

Dean's List for Academic Excellence — Afe Babalola University (2022–2025)

Data Privacy and Protection Club Member — Afe Babalola University (2024–2025)