# ABDULMALIK ADEYEMO

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#### **EDUCATION**

**B.Eng Computer Engineering** 

[08/2015 - 08/2021]

University of Ilorin, Ilorin, Nigeria website

GPA: 4.68/5.0 (First Class): Top 1% of over 9000 graduated students in 2021

**Relevant Courses (Grades):** Artificial Intelligence and Applications (A), Software Engineering (A), Software Development Techniques (A), Engineering Mathematics II (A), Control Theory (A), Fuzzy Logic and Programming (A), Introduction to Robotics and Automation (A)

## RESEARCH EXPERIENCE

**Graduate Research Intern** 

[01/2022 - 12/2022]

National Center for Artificial Intelligence and Robotics, Abuja, Nigeria.

Supervisor: Mr Murtala Dattijo

**Research Topic:** Automated Diagnosis of Diabetic Retinopathy from Fundus Images

- Reviewed literature on the different techniques in applying deep learning for early diagnosis using image data.
- Implemented the methodology and wrote an academic paper on the research. Link to Abstract

### **Undergraduate Research Assistant**

[10/2019 - 05/2021]

Computer Engineering, University of Ilorin, Ilorin, Nigeria.

Supervisor: Dr Aye Ajiboye

**Undergraduate Thesis:** Design and Development of a Semi-Autonomous Drone System.

- Wrote a research proposal, reviewed literature, and reported findings on a semi-autonomous drone system for security surveillance and package delivery.
- Wrote and submitted the mathematical analysis of the drone design for a thrust-to-weight ratio of 2:1.
- Led a team of 7 students in the design and development of the drone system.

#### WORK EXPERIENCE

## **Machine Learning Intern**

[01/2022 - 12/2022]

#### National Center for Artificial Intelligence and Robotics, Abuja, Nigeria

- Built 2 deep learning models, a binary-class ResNet-50 model trained on 85,056 fundus images to detect the presence or absence of diabetic retinopathy, and a multi-class ResNet-18 model trained on 44,224 fundus images to grade the severity level diabetic retinopathy. <u>View Project</u>
- Developed a state-of-the-art chest X-ray classifier by retraining a DenseNet model on 108,948 frontal-view X-ray images of 32,717 unique patients. <u>View Project</u>
- Built a 3D U-Net model for brain tumor auto-segmentation from 484 3D magnetic resonance imaging (MRI) scans. <u>View Project</u>
- Taught 12 interns in the implementation of python for artificial intelligence.

# Data Science Intern Hamoye AI, Remote

[07/2022 - 10/2022]

- Spearheaded a team of 20 interns on the development, evaluation, and deployment of a dementia prediction model based on a tabular dataset of 150 subjects aged 60 to 96, with a 91% accuracy. <u>View Project</u>
- Built a multi-label images classifier for satellite image chips with atmospheric conditions and various classes of land cover/land use using tensorflow, with an f2 score of 90%. View Project

## **Graduate Teaching Assistant**

[06/2021 - 09/2021]

Robotics and Artificial Intelligence Nigeria, Ibadan, Nigeria

- Trained 9 interns on the internet of things using Arduino and ESP8266 micro controllers.
- Supervised 9 interns on the development of a cloud based home automation system and a smart irrigation system.

#### PROFESSIONAL DEVELOPMENT AND CERTIFICATIONS

Machine Learning Specialization - Stanford   DeepLearning.AI. Certificate	[07/2022 - 08/2022]
AI for Medical Diagnosis - Coursera   DeepLearning.AI. Certificate	[02/2022 - 03/2022]
Practical Deep Learning For Coders - FastAI. Link	[08/2021 - 01/2022]
Applied Data Science - WorldQuant University. Certificate	[09/2021 - 12/2021]
Python 3 Programming: Beginner To Pro Masterclass - Udemy. Certificate	[04/2019 - 07/2019]

#### **CONFERENCES AND PRESENTATIONS**

- Department of Surgery, University of Ilorin research day on "Emerging Technologies in Surgery, Implication for Training and Practice in Resource Poor Settings", A 4 minute presentation by **Abdulmalik Adeyemo**, on "Automated Diagnosis Of Diabetic Retinopathy From Fundus Images Using Artificial Intelligence" [7/10/2022]
- Exhibitor at Digital Nigeria Conference on "Digital Transformation: A path to sustainable digital economy"
- Deep Learning IndabaX conference on "Responsible AI in National Security and Healthcare".
- Abdulmalik Adeyemo (2021): Design and Development of a Semi-Autonomous Drone System. A B.Eng undergraduate research project, submitted to the department of Computer Engineering, University of Ilorin, Nigeria.

## LEADERSHIP EXPERIENCE

# CEO and Co-founder

### FundusAI, Abuja, Nigeria

[11/2022 – Present]

- Created and presented the company's pitch deck during the iHatch startup incubation interview, which resulted in the company being selected as one of the top 6 out of over 8000 interviewed startups.
- Represented the company in pitching the solution during the CWG-PLC pitch for transformation challenge and was awarded 1st runner-up out of 100+ contestants.
- Collaborating with the Chief Technology Officer to develop a diagnostic device for capturing fundus images.

### AWARDS AND SCHOLARSHIP

Best intern award for the stage B data science track, Hamoye AI.	[09/2022]
Best graduating student, Department of Computer Engineering, University of Ilorin.	[08/2021]
First class honors award in Computer Engineering, University of Ilorin.	[08/2021]
Undergraduate scholarship award for the best student in Computer Engineering.	[2016 - 2021]

# **VOLUNTEERING EXPERIENCE**

**Artificial Intelligence Tutor** 

[08/2022 - 09/2022]

# NITDA STEM BOOT CAMP FOR KIDS, Abuja, Nigeria

• Tutored 156 kids aged 12 to 16 on how to build a facial recognition system using AI

# LearnWithMKTV, Ilorin, Nigeria

[02/2018 - 07/2021]

- Organized and tutored 20 classmates on difficult subjects, which helped them achieve academic success.
- Coached 150+ students on how to achieve academic success while keeping a good social life.

## PROFESSIONAL AFFILIATIONS

Black in AI Community [Member]	[2022 - Present]
AI for Good Community [Member]	[2022 - Present]
DeepLearning.AI Community [Member]	[2022 - Present]
Data Science Nigeria Community [Member]	[2021 - Present]

## **SKILLS**

**Lead Tutor** 

**Libraries and Frameworks:** Python, Pandas, Numpy, Matplotlib, Scikit-learn, Tensorflow, Keras, FastAI, Git & GitHub, SQL(In-view), Azure (In-view).

**Laboratory:** 3D Printer, Laser Cutting machine, Soldering Iron, Raspberry Pi, Arduino, ESPs.

Soft Skills: Team Leadership, Independence of Thought, Civic Mindset, Innovative Thinking

Languages: English (Bilingual Proficiency), Yoruba (Bilingual Proficiency)