

# Ajegbomogun Opeyemi Ayomikun

Software & Machine Learning Engineer  
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[PORTFOLIO](#) | [GITHUB](#) | [LINKEDIN](#)

## EDUCATION

**EKITI STATE UNIVERSITY**  
**BACHELOR'S MECHANICAL ENGINEERING**  
CGPA: 4.59

November 2016 - December 2022  
Ado Ekiti

## EXPERIENCE

**MIRA TECHNOLOGIES | SOFTWARE ENGINEER & MOBILE APP DEVELOPER** Lagos | May 2023 – Present

- Develop and maintain mobile applications using Flutter and Dart for Android and iOS platforms.
- Collaborate with a team of designers and developers to implement UI/UX designs and ensure optimal user experiences.
- Integrate APIs and handle data communication with backend services to support seamless app functionalities.
- Implement unit tests and conduct code reviews to ensure code quality and maintainability.
- Led the development of web applications using JavaScript, Node.js, and Python, utilizing React, Node.js, Django, and Flask frameworks.
- Implemented responsive and dynamic front-end designs to enhance user interactions.
- Developed RESTful APIs and backend systems to manage and retrieve data from SQL databases.
- Collaborated closely with cross-functional teams to design, develop, and deploy software solutions.
- Contributed to process improvements and code optimization, resulting in increased efficiency and reduced response time.

**ADAIN TECHNOLOGIES | SOFTWARE & MACHINE LEARNING ENGINEER** Remote | June 2023 – Present

- Spearhead the development and implementation of cutting-edge artificial intelligence products, ensuring they align with the company's vision and objectives.
- Collaborate closely with cross-functional teams to seamlessly integrate machine learning models into various applications, enhancing their functionalities and performance.
- Design and engineer sophisticated machine learning algorithms, enabling data-driven decision-making and predictive analytics.
- Continuously refine and update existing systems, optimizing their efficiency and effectiveness to stay ahead of the ever-evolving AI landscape.
- Lead research efforts and implement the latest ML algorithms and tools, leveraging industry best practices and emerging technologies to deliver innovative solutions.
- Develop machine learning applications to meet specific project requirements, conducting rigorous tests and experiments to validate their efficacy.
- Perform detailed statistical analysis and fine-tuning based on test results, ensuring optimal performance and accuracy of machine learning models.
- Drive the creation of self-learning applications capable of adaptive behavior, contributing to the company's pioneering AI initiatives.

## SKILLS

PROGRAMMING LANGUAGES	Python, JavaScript, C, Dart, SQL, Java
LIBRARIES/FRAEMWORKS	React, NodeJs, Django, Flask, Flutter, TensorFlow, PyTorch, Scikit-learn, NumPy, Pandas, SciPy, Matplotlib, Seaborn, Plotly
TOOLS / PLATFORMS	Glt, Figma, Miro, AWS, Azure, Google Cloud, RESTful, GraphQL
DATABASES	SQL, NoSQL

## PROJECTS / OPEN-SOURCE

### IVY | [Link](#)

Python, Shell, Dockerfile

Ivy is both an ML transpiler and a framework, currently supporting JAX, TensorFlow, PyTorch and Numpy. Ivy unifies all ML frameworks enabling you not only to write code that can be used with any of these frameworks as the backend, but also to convert any function, model or library written in any of them to your preferred framework!

### DNA-SEQUENCING | [Link](#)

Python

The program will take a sequence of DNA and a CSV file containing STR counts for a list of individuals and then output to whom the DNA (most likely) belongs.

### POTHOLEDTECTION-CNN | [Link](#)

Jupyter Notebook, Python

This machine learning project utilizes Convolutional Neural Networks (CNN) to detect potholes in images, enhancing road safety and maintenance. A diverse dataset of pothole and non-pothole road surface images is collected and preprocessed. The CNN model is trained to accurately identify and localize potholes. Data augmentation and transfer learning enhance model performance. After rigorous testing and optimization, the user-friendly interface allows users to upload images for pothole detection. The system marks detected potholes, providing a visual representation of potential road hazards. Continuous evaluation and updates ensure the model's effectiveness over time, offering an automated solution for efficient pothole detection.

### TIDEMAN | [Link](#)

C

There's another kind of voting system known as a ranked-choice voting system. In a ranked-choice system, voters can vote for more than one candidate. Instead of just voting for their top choice, they can rank the candidates in order of preference. The Tideman voting method (also known as "ranked pairs") is a ranked-choice voting method that's guaranteed to produce the Condorcet winner of the election if one exists.

### INHERITANCE | [Link](#)

C

To simulate genetic inheritance of a person's blood type is determined by two alleles (i.e., different forms of a gene). The three possible alleles are A, B, and O, of which each person has two (possibly the same, possibly different). Each of a child's parents randomly passes one of their two blood type alleles to their child. The possible blood type combinations, then, are: OO, OA, OB, AO, AA, AB, BO, BA, and BB.

### CAESAR | [Link](#)

C

The program encrypts messages using Caesar's cipher.

### AMAZONCLONE | [Link](#)

HTML, CSS, JavaScript

The project encompasses both front-end and back-end components, featuring a user interface reminiscent of Amazon's platform. This user interface facilitates seamless order placement, precise tax calculations, and discount application. Additionally, it includes a shipment tracking system to provide real-time updates on the status and location of orders.

### FINAL PROJECT - SCHOOL | [Link](#)

HTML, Python

The project is a full-stack web application, encompassing both front-end and back-end development. It offers user registration and authentication functionalities, enabling users to create accounts, log in, and log out securely. Once authenticated, users gain access to a personalized dashboard, where they can view and interact with posts shared by other users. The platform fosters a sense of community by allowing users to engage with each other's posts through comments and reactions. The application is designed with a responsive and intuitive user interface to enhance the overall user experience.

## CERTIFICATIONS

- CS50x Introduction to Computer Science and Art of Programming - **HARVARD UNIVERSITY CS50**
- CS50p Introduction to Programming with Python - **HARVARD UNIVERSITY CS50**