

Oromidayo Owolabi *Software Engineer*

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Education

Covenant University, *B.Eng, Computer Engineering*
GPA : 4.79 / 5.00 (First Class)

2018 – 2023 | Nigeria

Relevant Courses: Software Engineering, Computer Architecture, Artificial Intelligence, Computer Networking and Security, Cryptography, Microprocessor Systems, Embedded Systems, Computer Graphics, Digital Signal Processing

Professional Experience

University of Ibadan Design Studio, *Engineering Intern*

Apr 2022 – Aug 2022 | Ibadan, Nigeria

- Spearheaded the design and construction of a Solar Powered Weather IoT Station
- Successfully deployed a self-retraining Weather Prediction service on AWS Lambda, improving the reliability of local weather forecasts
- Engineered a robust backend service utilizing Python and Flask, coupled with an intuitive dashboard created with React.js, resulting in 90% time reduction in station management and data visualization
- Wrote firmware code for sensor interfacing, power conservation, and configurable WiFi capabilities using C and FreeRTOS, reducing power consumption by over 200%
- Ported I2C Driver for the Si1145 sensor from C++ to C and wrote driver code for the GUVVA-S12SD sensor

Fireswitch Technologies, *Software Developer Intern*

Sep 2021 – Dec 2021 | Ibadan, Nigeria

- Led the frontend development of ReniNotes from scratch using React.js
- Collaborated closely with a UI designer and backend engineers to translate designs into a functional user interface
- Ported state management to Redux, leading to a 30% increase in code maintainability

Projects

LightBox, *Python, Flask, React, SQL, WebSockets* [🔗](#)

Dec 2022 – Jun 2023

- Created a federated queueing platform for GPU processing in AI photo editing applications.
- Implemented a GPU Client that runs txt/img2img, inpainting, outpainting, upscaling and removal operations
- Developed a robust queueing server for seamless communication between GPU clients via WebSockets
- Wrote a frontend photo editing application using React.js with a generalization layer to support various models
- Wrote a server-server protocol for federation and trust-based priority scheduling for bad actor management

FlexDB, *C++* [🔗](#)

Mar 2022 – Jun 2022

- Created a Document-Oriented Labelled-Property-Graph Database in C++ with JSON serialization and deserialization
- Developed a query language interpreter based on the Gremlin Query Language with static typing
- Implemented a range of graph operations for graph mutation, traversal and querying, and a simple REPL shell

ZCamp, *TypeScript* [🔗](#)

May 2022 – Aug 2022

- Worked in a team of 2 on the development of a forum for university students with subgroups
- Wrote robust backend functionality using Node.js, TypeScript, GraphQL, PostgreSQL, and Redis
- Implemented key features such as posting, user points, voting systems, and nested comments

SLAMBot, *Python, Flask, Linux* [🔗](#)

Aug 2022

- Created a web interface for controlling and streaming video output from a 4WD robot with Flask
- Implemented line following using ROS and person tracking using YOLOv4 with video stream overlays

Cpplox, *C++* [🔗](#)

Sep 2023

- Wrote a tree-walk interpreter for a dynamically typed language using Recursive Descent Parsing from scratch
- Structured multiple virtual classes for the interpreter, parser, and scanner stages and resolved memory issues with Valgrind
- Implemented lexical scoping and resolution, control flow, functions, and closures.

Skills

Software (Python, Typescript, Javascript, C, C++, Go, Java, HTML, CSS, PyTorch, MATLAB),

Tools (React, Node.js, Flask, Redux, Git, Docker, Azure, AWS, SQL, MongoDB, PostgreSQL, pandas, ROS 2)

Activities

3LINE Hackathon, *3rd*

- Worked in a team of 3 to develop an AI platform for payment processing
- Implemented a speech-based payment engine using OpenAI Whisper and zero-shot classification on Distill-BERT
- Profiled autoencoders for Fraud Detection and wrote server code to interface the AI with the frontend application