

# Oluwole Fabikun

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## Education

University of Massachusetts-Amherst, Amherst MA  
B.A. in Computer Science, Biology Minor

Expected May '24

**Related Courses:** Algorithms, Data Structures, Advanced Computation, Database Management, Web Programming, Human-Comp Interaction, Data Forecasting, Computational Statistics

**Extracurriculars:** National Society of Black Engineers Academic Outreach Chair, ColorStack Member, HackUMass, UMass Brotherly Union, UMass Fashion Organization, Barber/Founder of Wole's Cuts

**Awards & Scholarships:** Microsoft Power Platform Champion Award, National Science Foundation LSAMP Funding, Raymond D. Gozzi Scholarship, David Knapp Scholarship, John & Abigail Adams Scholarship, Class of 1971 Scholarship

## Technical Skills

**Languages:** Python, Typescript, Java, SQL, HTML, CSS

**Frameworks/Libraries:** Express, NextJS, React, Node.js, Flask, Django, TailwindCSS, Qdrant, Pandas, OpenAI API

**Tools:** Git, Postgres, Postman, Firebase, Jupyter Notebook, Power BI, Figma

## Experience

**Software Engineer Co-op** – Novy.ai

Jan '24 - Present

- Key contributor to the development of Paidleave.ai, a chatbot initiative in collaboration with MOMS F1RST and OpenAI, featured in Forbes for simplifying New York's intricate paid leave policies, with ongoing expansion to 13 additional states and D.C.
- Overhauled the **semantic search** mechanism using Qdrant, elevating the chatbot's understanding of natural language inquiries, which led to a marked uptick in the accuracy of search outcomes amidst intricate datasets
- Engineered scripts to aggregate and enhance database content, reinforcing the AI's response accuracy, and enhanced the chatbot with refined AI prompts for more accurate, personalized user interactions to support scaling the tool across multiple states

**Software Developer** – BUILD UMass

Aug '23 - Present

- Collaborating on a team of five to elevate the Amherst Ballet School website's functionality and user experience by leveraging **React**, **Django**, and **Firebase**, focusing on modernizing online presence and improving user engagement
- Applying **Agile methodologies** such as **Scrum** standups and sprints, effectively maneuvering through technical complexities, ensuring steady progress, and adherence to project timelines

**Software/Data Research Intern** – Laboratory for Advanced System Software

Sep '22 - Present

- Spearheading a **deep learning** research initiative focused on the implementation of **computer vision** techniques for over **90%** accuracy in identifying solar potential of roofs
- Utilizing **Python**, computer vision libraries, and satellite imagery data to develop and test models
- Creating custom solar energy generation applications with **Flask** to enhance data visualization, user interaction, and optimize research efficiency

**Developer Intern** – Nucor Skyline

Jun '23 - Aug '23

- Designed and implemented a secure **RESTful API** using **ASP.NET** core, enabling **JWT token**-based user authentication and authorization, while collaboration with team members to integrate the API into the project ecosystem
- Utilized **Salesforce Object API** in **Power BI** to optimize data retrieval and analysis processes for improved business insight efficiency and enable seamless integration between Salesforce and Power BI
- Developed a dynamic credit Dashboard in Power BI that enabled real-time visualization of quote data, leading to a **20%** improvement in sales analysis accuracy and empowering daily data-driven decision-making

## Projects

**Solar Energy Modeling Application**

Sep '23 - Current

- Spearheading the development and publishing of a comprehensive full-stack application utilizing **Flask** and **Python**, powered by the **NSRDB API** to empower researchers by providing enhanced access to historical solar energy statistics
- Customizing application to allow users to adjust parameters such as intervals and attributes to access historical solar energy data
- Significantly improving the application's user-friendliness, ensuring accessibility for researchers across various expertise levels in solar performance modeling

**Personal Portfolio Website**

Aug '23

- Engineered a dynamic personal portfolio website using **React**, **Tailwind CSS**, and modern web development practices
- Leveraged server-side rendering (**SSR**) and markdown components (**MDX**) to ensure performance and SEO friendliness
- Created an intuitive and visually appealing user interface with a mobile-responsive design