Timothy Medewase

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EDUCATION

University of Montevallo   Montevallo, AL
Honors Bachelor of Science in Computer Science, Minor in Mathematics   *Aug. 2021 - May 2025*
Relevant Coursework: Introduction to Computer Science, Computer Programming I (Python), Object-Oriented Programming, Calculus I, II, III, Data Structures and Algorithms, Database Management Systems, Operating Systems, Computer Networks, Programming Languages, Software Engineering

TECHNICAL SKILLS

Languages: Java, TypeScript, JavaScript, SQL, Python, C++, HTML/CSS
Frameworks & Libraries: React, Node.js, Flask, Express.js, Spring Boot, Material-UI, TailwindCSS, BootStrap, Next.js, Pandas, NumPy, Matplotlib, Scikit-learn, SciPy, Tensorflow, PyTorch
Developer Tools: Git, SQLite, PostgreSQL, LaTeX, Figma, VS Code

EXPERIENCE

Software Development Intern   June 2023 — July 2023
Solera, Inc.   *Westlake, TX*
- Designed and implemented an interactive dashboard using **React.js**, creating modular and reusable components, which reduced development time for new features by 40% and ensured scalability across the application.
- Integrated data visualization libraries (**D3.js**) to transform complex datasets into dynamic and visually engaging insights, leading to a 30% increase in user engagement
- Developed optimized **Microsoft SQL Server** queries to extract, filter, and aggregate data, reducing data retrieval time by 50% and encapsulated them into stored procedures to enhance code consistency and reusability
- Enhanced API interactions through the use of **Axios**, achieving a 40% improvement in data retrieval times while ensuring smooth integration with front-end components and elevating overall application responsiveness
- Delivered a comprehensive and interactive analytics platform that provided stakeholders with real-time insights, maximizing the value of existing company data and improving decision-making efficiency by 35%

PROJECTS

SPAZ | *Next.js, React, JavaScript* | [Link]   February 2024 - May 2024
- Developed a web application using **Next.js, TailwindCSS, JavaScript** that provides users insights into their Spotify listening patterns, processing 1000+ user data points
- Utilized Spotify's API to access user's data, requiring user authentication via **OAuth 2.0**

Buy-N-Sell | *Next.js, React, Prisma, PostgreSQL* | [Link]   March 2024 - April 2024
- Developed a robust e-commerce platform with **Next.js** and **React**, featuring user authentication, order processing, and secure payment transactions
- Designed and implemented an intuitive admin interface for product management, allowing the addition, update, and deletion of products through a streamlined workflow, increasing efficiency by 50%
- Utilized **Prisma** and optimized **PostgreSQL** queries to manage user and product data efficiently, ensuring high performance and reducing query execution time by 35%

Housing Predictions Project | *Python, Scikit-learn, SciPy, NumPy, Matplotlib, Pandas* | [Link]   April 2025
- Created a predictive system for California housing costs using a comprehensive dataset, leveraging **Pandas** for data manipulation and preprocessing
- Optimized the **Random Forest regressor** model through hyperparameter tuning, achieving highly accurate housing price predictions

ExplainAI | *Next.js, FastAPI, FAISS, OpenAI API* | [Link]   April 2025
- Developed a **RAG-powered** web application enabling users to upload files and retrieve contextual explanations using **Next.js** for the frontend and **FastAPI** for the backend
- Integrated **FAISS** for efficient vector-based document retrieval and **OpenAI API** to generate context-aware responses
- Implemented secure file handling and processing pipelines to support dynamic user queries on uploaded documents
- Optimized embedding retrieval by fine-tuning query processing techniques for improved response accuracy