Meriam Harissa

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EDUCATION

University of Michigan-Dearborn — Dearborn, MI
Bachelor of Science in Software Engineering — *April 2025*
GPA: 3.85

Relevant Coursework: Data Structures & Algorithms, Database Management Systems, Software Architecture and Design

WORK EXPERIENCE

University of Michigan-Dearborn — 08/24 - 4/25
Undergraduate Researcher
- First author on a research paper introducing a spatiotemporal machine learning framework for ecological forecasting, improving accuracy by 25.3% and advancing AI-driven conservation efforts.
- Designed and optimized ML system, surpassing baseline models through feature engineering and hyperparameter tuning.
- Built an automated data pipeline integrating multi-source datasets, achieving an 82.2% F1-score in bird sighting predictions.

DTE — 10/22 - 04/23
Student Co-op
- Contributed to the strategic deployment of 70 Viper Recloser units across Southeast Michigan, enhancing regional power reliability through circuit analysis and system integration.
- Simulated electrical systems using analytical software, processing real-time grid data to reduce outages and improve efficiency.
- Optimized energy distribution systems by developing technical solutions and effectively communicating findings to cross-functional teams.

KEY PROJECTS

Robin | Bird Song Identifier App — 09/24 - Present
- Developed cross-platform mobile app for real-time bird species identification with personalized forecasts, educational chatbot, and accessibility tools for visually impaired users, with over 200 user downloads and growing engagement.
- Led Robin to win the 2024–25 Ford College Network National Competition Social Impact Award, securing $20,000 to expand the app into an interactive installation at the College for Creative Studies.

CarbonWise | Carbon Footprint Manager — 10/24 - 12/24
- Collaborated on the development of a full-stack MERN application, allowing Dearborn residents to track, visualize, and reduce carbon footprints through interactive data insights.
- Implemented AI recommendation system using fine-tuned ChatGPT-4o, delivering data-driven strategies tailored to user behavior; presented research at UM-Dearborn's Practice-Based Learning Conference.

DriveShare | Peer-to-Peer Car Rental Platform — 01/24 - 04/24
- Developed full-stack web application with secure authentication, real-time booking management, and interactive messaging for peer-to-peer car rentals.
- Designed a secure transaction flow preventing double bookings, integrated payment simulation with real-time notifications for booking requests, confirmations, and interactions.

NutriScan | Nutritional Information App — 02/24 - 04/24
- Created cross-platform app that analyzes food products through barcode scanning and product searches, providing users with nutritional profiles and health ratings.
- Integrated Open Food Facts API to deliver NutriScore ratings and dietary insights, enabling informed food choices with real-time data retrieval.

SKILLS

Professional Skills
- Full Stack Development
- UI/UX Design
- Data Analysis
- Team Collaboration
- Agile & Scrum Methodologies
- Object Oriented Programming
- Testing & Debugging

Technical Skills
- **Languages:** Python, JavaScript, C++, Java, PHP
- **Web Technologies:** HTML, CSS, React, React Native Expo, REST APIs
- **Databases:** MySQL, MongoDB, Firebase Firestore
- **Cloud & DevOps:** Azure DevOps, AWS, Docker
- **Tools:** Git/GitLab, VS Code, Jira, Postman, Figma
- **Other:** MATLAB, Microsoft Office Suite