# Meriam Harissa

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## EDUCATION

**University of Michigan-Dearborn**                                                            Dearborn, MI
*Bachelor of Science in Software Engineering*                                        *Expected: April 2025*
GPA: 3.83

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

## WORK EXPERIENCE

**University of Michigan-Dearborn**                                                            08/24 - Present
*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  Ford College Network Test Track**                 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.
- Selected as one of two UM-Dearborn teams for Ford College Network competition, leading efforts to integrate Robin into a physical installation at 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