Rahma Seid

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EDUCATION

Middle Tennessee State University — Murfreesboro, TN

Bachelor of Science in Computer Science, Minor in Data Science — *Expected: Dec. 2025*

Awards: HackMT 3rd Place Award (2023), Grace Hopper Celebration Scholarship (2022)

Relevant Coursework: Data Structures & Algorithms, Computer Systems, Discrete Structures, Assembly & Computer Organization, Data Cleansing & Feature Engineering, Database Management Systems, Web Technologies, Applied Predictive Modeling

EXPERIENCE

Undergraduate Research Assistant — Aug. 2023 – Oct. 2023

Voorhees Engineering Technology Lab — *Murfreesboro, TN*

- Developed interactive data dashboards in **Excel**, streamlining analysis of machine-generated irrigation data and reducing evaluation time by **40%**, improving decision-making for water usage.
- Utilized **high-resolution imaging systems** to improve soil moisture trend accuracy by **25%**, enabling more precise agricultural interventions.
- Engineered a pipeline to convert raw sensor data into actionable insights, enhancing the lab's ability to evaluate environmental patterns for smart irrigation planning.

PROJECTS

Mixtape Web App | *PHP, MySQL, JavaScript, HTML/CSS* — April 2025 – May 2025

Team Lead & Backend Developer – Web Technologies Project

- Led a **full-stack development team** in creating a dynamic web app where users can generate, save, and play custom music mixtapes using **YouTube video metadata**.
- Designed and implemented the **MySQL relational database schema** linking users, songs, and playlists, enabling structured and scalable data storage.
- Developed backend logic in **PHP** to handle playlist creation, storage, and retrieval, ensuring seamless integration with the frontend.
- Collaborated with frontend developers to maintain consistent **data flow** and **user experience** across features such as playlist history, theme switching, and playback controls.

Personal Budget App | *PHP, MySQL, Docker, XAMPP* — Jan. 2025 – April 2025

Backend Developer - Database Management Systems Project

- Engineered the backend in **PHP** and designed a normalized **MySQL** database schema using **phpMyAdmin** with relational integrity, enabling secure storage and retrieval of user data across budgeting, transactions, and bill management features.
- Collaborated on a 3-person team to build and deploy a web-based personal finance app using **HTML/CSS** and **Docker**, integrating goal-based savings tracking, automated bill reminders, and expense forecasting tools.
- Enabled advanced financial features such as **goal-based savings tracking**, **automated bill reminders**, and **expense forecasting**, improving users' budgeting insight and control.

Pac-Man Game | *C, Socket Programming* — Nov. 2024 – Dec. 2024

Computer Systems Project

- Built a **multiplayer Pac-Man-style game** in **C** using **client-server architecture**, offering a responsive and scalable real-time gaming experience.
- Implemented **socket programming** and **multi-threading** to maintain concurrent player sessions, reducing latency and enhancing gameplay reliability.
- Resolved synchronization issues using **mutexes** and **conditional variables**, improving game stability and ensuring consistent state management during multiplayer interactions.

TECHNICAL SKILLS

Languages: Python, C/C++, SQL, TypeScript, HTML/CSS, PHP
Frameworks: React, React Native, Flutter
Developer Tools: GitHub, Replit, Jupyter Notebook, Android Studio, VS Code, Expo, MySQL Workbench
Development Concepts: Data Structures & Algorithms, Object-Oriented Programming (OOP)