# VICTOR TYLER JR

LinkedIn | mr.tyler97@hotmail.com | Portfolio

#### **EDUCATION**

#### **EASTERN MICHIGAN UNIVERSITY**

Bachelor of Arts, Computer Science

Ypsilanti, MI December 2025

#### **SKILLS**

Languages: Python, TypeScript, JavaScript, Java, Swift, C, C++, C#

**Databases:** MySQL

Frameworks/Libraries: SwiftUI, PyTorch, TensorFlow, Streamlit, React, React Bootstrap, Express, Node.js, Electron, Vitest

Development Tools: GitHub, Visual Studio Code, Xcode, Eclipse, Microsoft Office, Arduino IDE

Cloud/Platforms: AWS (EC2, Lambda), Linux (Ubuntu), macOS, Windows

#### WORK EXPERIENCE

HONEYWELL Charlotte, NC

Software Engineer Intern | Full-Stack (React, Bootstrap, Streamlit, Typescript, Python, Linux)

June 2025 – August 2025

- Developed a **full-stack** application that consolidated multiple database configuration workflows into a single interface, eliminating manual reconfiguration processes and accelerating trade show demo deployment by 75%
- Researched multiple tech stack options, created detailed **wireframes**, and architected the project as a Monorepo to enable future mobile integration and code reuse for **scalable development**
- Built a configuration management system with real-time validation, unique ID checks, and error handling, ensuring reliable demo configurations and **data integrity** across multiple trade show scenarios
- Optimized **ML/AI** deployment application by resolving Python dependency discrepancies, enhancing Streamlit UI components, and creating comprehensive documentation with updated requirements

### EASTERN MICHIGAN UNIVERSITY

Ypsilanti, MI

Research Assistant | Framework Creation for Department of Chemistry (Python, Linux) | GitHub

Aug 2024 – April 2025

- Developed a Linux-based pipeline in **Python** to simulate and analyze autophagic vacuoles, improving research efficiency and boosting workflow speed by 20%
- Automated the pipeline and optimized CompuCell3D parameters, enhancing simulation speed and accuracy, leading to more reliable outputs

### **EASTERN MICHIGAN UNIVERSITY**

Ypsilanti, MI

**Teacher Assistant & Grader** | Intro to Programming & Programming Data Structures (Java)

Aug 2023 – April 2024

• Explained data structure functions and proper code etiquette to students improving their understanding of data structure logic, **object-oriented programming**, and algorithm efficiency

#### **PROJECTS**

### **KEEP OR DELETE**

• As **Team Leader** for a six-developer group, I led the development of a cross-platform desktop application that streamlines file management—enabling directory selection, preview, renaming, and deletion. I also integrated a context-aware **AI assistant** for renaming and actively contributed to **sprint planning**, **software architecture design**, core feature integration, UI design, **API integration**, resolving merge conflicts, and writing **unit tests**. (JavaScript, Electron, Node.js, CSS, HTML, Chat GPT API, AWS Lambda, Playwright) | *Website* 

## **BILL SPLITTER iOS APP**

• Built a **native** iOS application for calculating bill splits and tip amounts using **SwiftUI's** framework and iOS design patterns. This application includes data binding, user input handling, dynamic keyboard management, and localized currency formatting. (SwiftUI, Swift, Xcode)

#### EMBEDDED ML MODEL - REAL TIME LED CONTROL

• Designed and **trained** a **multi-layer perceptron**; converted it to a space efficient **TensorFlow Lite** model and deployed it on an Arduino Nano 33 BLE Sense board for real-time pulse-width modulation LED control. (Python, C++, TensorFlow, Matplotlib, NumPy, Pandas)

### LEADERSHIP EXPERIENCE

# National Society of Black Engineers | Vice President

Sept 2024 - April 2025

• Forged partnerships with companies to coordinate events and trips, improving opportunities for NSBE and EMU students