

FRANCISCO MUSTICO

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EDUCATION

Lawrence Technological University

Bachelor of Science in Computer Science - Software Engineering

Expected Graduation: May 2027

Southfield, Michigan

- GPA: 4.0 / 4.0 - Dean's List (All Semesters)
- Relevant coursework: Data Structures & Algorithms, Operating Systems, Software Architecture, Database Systems

EXPERIENCE

Software Engineer Intern

TWIG Power — C#, ASP.NET, PostgreSQL, REST API

May 2025 – Present

Novi, MI

- Built and deployed internal **C# Windows Forms applications** backed by **PostgreSQL**, digitizing operational workflows, **replacing manual recordkeeping**, and improving data consistency for production teams.
- Designed **database-backed traceability** and record-retrieval features that reduced manual verification time, improved operational visibility, and **strengthened audit readiness**.
- **Owned end-to-end delivery** of internal software tools from **requirements gathering through deployment**, collaborating with operations, quality, and engineering stakeholders to translate workflow needs into **maintainable systems**.
- Developed a **centralized issue-tracking and quality-record workflow** with diagnostics support and file attachment handling, consolidating scattered manual logs into a structured internal system.
- Configured and supported **backend application infrastructure** for multi-user internal systems, **improving reliability, data availability, and day-to-day supportability** for production users.
- Built **ASP.NET Core Web API services** to connect internal applications with approved third-party services, streamline engineering workflows, and support future automation.

Lead Computer Science Tutor

Zaven Margosian Student Success Center

March. 2025 – Present

Southfield, MI

- Delivered **one-on-one tutoring** in **Python, C++, Java, SQL, Data Structures, Discrete Math**, and core CS courses (**CS1, CS2, SWE1**), enhancing student mastery of complex concepts.
- Created targeted walkthroughs and study aids to strengthen problem-solving skills in **recursion, sorting algorithms, and logic-based topics**.
- Provided exam preparation & assignment guidance, contributing to noticeable improvement in student performance & confidence.

PROJECTS

JavaMart

Jan. 2025

- Built a **desktop Java GUI** to manage products, invoices, and payments, **automating** order and tax processing to **replace manual bookkeeping**.
- Integrated **custom file I/O** for persistent synchronization between GUI and console modules.
- Optimized data entry flow for bulk orders, **improving consistency and processing speed**.

AI ArmCar

Dec. 2023

- Designed and assembled a robotic arm and **self-driving cart** using Arduino and servo motors for precision control.
- Implemented **object detection** and navigation using YOLOv4, enabling **real-time obstacle recognition**.
- Built a responsive **web interface** for manual overrides and **real-time sensor visualization**.

MathAid

Jan. 2023

- Built an **adaptive Python study app** for SAT & PAA prep with 150+ questions and **progress tracking**.
- Engineered performance-based **difficulty scaling** and **error detection** to tailor practice for each user.
- Optimized engagement through **automated feedback** loops that **identified recurring user errors**.

TECHNICAL SKILLS

Languages: Python, C++, C#, Java, SQL

Developer Tools: Github, Gitkraken, VS Code, Visual Studio, PostgreSQL, DBeaver

Frameworks: ASP.NET Core, Windows Forms

Human Languages: English, Spanish, French