Francisco Mustico

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EDUCATION

Lawrence Technological University   Expected Graduation: May 2027
Bachelor of Science in Computer Science - Software Engineering   *Southfield, MI*
- GPA: 4.0 / 4.0
- Relevant coursework: OOP, Mathematics and data science, Software Construction, Implementation of Computational Methods, Device Interconnection, Algorithms and Data Structures.   *Link to courses*

Varsity Golf Player   Jan 2024 - Present
Lawrence Technological University Athletics   *Southfield, MI*

EXPERIENCE

Software Engineering Intern   May 2025 – Present
TWIG Power — C#, .NET Framework, PostgreSQL, GitKraken   *Novi, MI*
- Engineered a standalone Windows Forms application in **C# integrated with PostgreSQL**, digitizing and streamlining the Battery Module Assembly (BMA) workflow across staffing, welding, testing, and auditing stages.
- Developed a high performance **lookup tool to instantly trace** internal module components by serial number, significantly **reducing audit time** and **eliminating the need for disassembly**.
- **Replaced 100% of paper-based processes** by designing and deploying a **fully digital checklist and record system**, boosting operational reliability and minimizing input errors on the production floor.

Computer Science Tutor   March. 2025 – Present
Zaven Margosian Student Success Center   *Southfield, MI*
- Provide one-on-one tutoring in **Python**, **C++**, **Java**, **SQL**, **Data Structures**, **Discrete Math**, **CS1**, **CS2**, **SWE1**.
- Help students prepare for exams and assignments by creating study materials and offering targeted guidance.
- Simplify complex concepts and foster independent problem-solving through personalized explanations and support.

PROJECTS

JavaMart   Jan. 2025
- Developed **intuitive Java GUI** displaying product images, prices, descriptions, and managing customer records.
- Engineered **a dynamic discount system** for bulk orders with **automated tax calculations**, secure payment scheduling, and **invoice generation**, **reducing manual errors by 100%**.
- Designed **a custom TXT file I/O system** for products.txt and customers with **real-time data validation** and **bidirectional synchronization** between GUI/console modes, **ensuring 100% data accuracy through consistency checks**.

Personal Portfolio Website   Oct. 2024
- Launched a fully responsive portfolio website using **HTML**, **CSS**, and **JavaScript** to showcase personal projects and skills.
- Implemented secure **HTTPS protocol** to protect user data and improve **SEO** performance.
- Utilized **GitHub** for **version control**, enabling continuous updates and improvements based on user feedback.

AI ArmCar   Dec. 2023
- Constructed a robotic arm utilizing **Arduino** and servo motors to achieve precise manipulation in various tasks.
- Engineered an **autonomous cart** equipped with a camera and **AI for object detection** and manipulation, employing YOLOv4 for robust **obstacle detection** and navigation.
- Employed **HTML, Javascript and CSS** to allow user interaction with the robot.

MathAid   Jan. 2023
- Created **Python-based** educational software for SAT & PAA test prep, optimizing learning experiences.
- Utilized **CSV** data storage, **Pandas**, and **adaptive algorithms** to enhance learning, providing over **150 questions.**
- Achieved **enhanced adaptive learning** capabilities, tailoring content to individual needs and progress while enabling the program to **recognize** and **address user errors** for continuous improvement.

TECHNICAL SKILLS

Languages: Python, C++, C# Java, SQL
Developer Tools: Github, VS Code, Visual Studio, PostgreSQL, DBeaver
Frameworks: .NET, .NET MAUI
Human Languages: English, Spanish, French