Luisa Fernanda Valdez Guillén

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EDUCATION

Monterrey Institute of Technology and Higher Education, Queretaro Campus
Bachelor of Science in Engineering in Computational Technologies
Expected Graduation: June 2027
GPA 94/100 • GPA
Relevant Coursework: Data Structures and Algorithms, OOP (Object-Oriented Programming), Functional Programming, UML Design, Software Requirements Analysis.

Technological Industrial and Services High School Center No.118
Technical Degree in Programming
August 2020 – July 2023
Relevant Coursework: Development of web applications with database connection, Methodologies for software development, OOP (Object-Oriented Programming)

SKILLS

Programming Languages: Python, C++, JavaScript, PHP, TypeScript, R.
Technologies: HTML, CSS, Git, GitHub, SQL, Visual Studio, Figma, Bootstrap, React, Tailwind CSS, Next.js, Arduino.

SOCIAL IMPACT PROJECTS

COMMUNITY HUB
August 2024 - Present
A social initiative providing website development for non-profit organizations.

- **Leadership and Team Management:** Spearheaded a team of 20 tech students, fostering collaboration and ensuring the successful delivery of user-friendly and functional websites for non-profit organizations.
- **Skill Development:** Implement workflows and best practices to enhance team efficiency, ensuring participants gained experience in full-stack development and agile methodologies.
- **Impact:** Empowered non-profits with custom-built websites and database management systems, enabling them to expand their reach, streamline operations, and amplify their mission to a wider audience.

ACM Student Chapter
February 2024 - Present
Promoting excellence in computer science and fostering a culture of competitive programming within the university community.

- **Leadership Role:** As a board member, contributed to shaping strategies and initiatives to promote computer science education and engagement among students.
- **Event Logistics Coordination:** Successfully organized and managed the logistics for hosting the International Collegiate Programming Contest (ICPC) at the Tecnologico de Monterry, Queretaro Campus, ensuring seamless execution for one of the largest global programming competitions.
- **Skill Development:** Designed courses on algorithms and data structures, enhancing technical proficiency within the student body. Collaborated in planning and executing diverse events to inspire interest in computer science.

PROJECTS

Official Website for "Querétaro Sí Sonríe" Foundation
August 2024 – December 2024
Developed a comprehensive web solution to enhance organizational visibility and efficiency. | HTML, JavaScript, TailwindCSS, TypeScript, React, PostgreSQL, Prisma, tRPC, Next.js, Git, GitHub.

- **Digital Transformation:** Designed and implemented the official website, enabling the foundation to access government benefits and integrate into online support and growth networks.
- **Increased Outreach:** Established a digital platform that showcases the foundation's mission, impact, and services, connecting it with a broader audience and strengthening relationships with its community.
- **Enhanced Patient Care:** Built a robust patient management system with SQL databases, allowing the organization to maintain detailed records of diagnoses, treatment progress, and patient history.

AIRALYZE IoT Solution for Woodworkers
September 2024 – December 2024
Developed an IoT-based environmental monitoring system to improve workplace safety and ensure material quality. | ESP32, DHT11, DC010 PM2.5 sensor, Arduino, HTML, CSS, JavaScript, PHP, MySQL, Google Statistics, Git, GitHub.

- **Environmental Monitoring:** Collects and analyzes data on air quality, temperature, and humidity to ensure safe working conditions and optimal storage for materials.
- **Database Integration:** Implemented a MySQL database to manage and store real-time sensor data, enabling efficient tracking and historical analysis.
- **Web Interface:** Developed an intuitive web application for users that displays real-time sensor data and integrated graphs to monitor trends and support data-driven decision-making.

NOVUS MxREP web site Redesign
August 2024 – November 2024
Redesigned and developed the official website for MxREP, a manufacturing process simulator integrated with virtual and augmented reality, designed to bridge theoretical learning with hands-on practice for students in collaboration with industry partners. | HTML, CSS, Bootstrap, JavaScript, Git.

- **Leadership:** Led the design and development team, successfully managing a group of 5 members while ensuring effective communication and coordination with other project teams.
- **Impact:** Created an official digital presence for the MxREP project, positioning it within the Tecnologico de Monterrey's communication network.

School Management System Based on Object-Oriented Programming
April 2024 – June 2024
System for management of students, teachers, groups, classrooms, and educational materials | C++, Git, GitHub.

- **Implementation of OOP knowledge:** UML design, composition, inheritance, overloading, overriding, abstract classes, pointers, polymorphism.
- **Impact:** The system enables grade assignments, student enrollment, and group/classroom management, ensuring efficient tracking of student performance and resources.