SARA ITZEL GARCÍA VELÁSQUEZ

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EDUCATION

Instituto Tecnológico de Estudios Superiores Monterrey   August 2022 - June 2026
Bachelor's Degree in Computer Technologies Engineering   GPA 92.48/100

SKILLS

- **Programming Languages:** Python, JavaScript, HTML, CSS, C#, C++, R, Matlab, Arduino
- **Databases:** MySQL, PostgreSQL
- **Tools:** Node.js, GitHub, Unity, Excel, Packet Tracer
- **Languages:** English, Spanish Native

NOTABLE PROJECTS

Multi-Agent Warehouse Simulation   **August 2024 - September 2024**

- **Developed** an autonomous warehouse simulation using Python (Mesa) and Unity, integrating Q-Learning to train robots for optimal route planning and collision avoidance.
- **Designed** an adaptive Q-Learning policy, enabling robots to dynamically adjust their paths and improve task efficiency.
- **Enhanced** the system with real-time 3D visualization in Unity, allowing continuous learning and better task execution without human intervention.

Integrated Project for Rockwell Automation   **June 2024**

- **Developed** an integrated project to showcase Rockwell Automation's services, featuring an interactive Unity video game that simulated various industrial scenarios. Additionally, I built a dynamic website using HTML, JavaScript, and CSS to provide educational resources and detailed information about the company's offerings.
- **Implemented** a PostgreSQL database to manage and integrate data across platforms, ensuring seamless data flow and enhancing user understanding of the digital thread concept.

Internet of Things (IoT) Pet Monitoring Project with Arduino and SQL Database   **September 2023**

- **Developed** an IoT project for pet monitoring using Arduino, building a physical prototype to track pets, monitor their food and water intake, and assess water quality in real-time.
- **Designed** an SQL database to store and manage the data collected by sensors, ensuring efficient data handling and accessibility for further analysis.

OTHER INFORMATION

Taught basic computer skills to children aged 9-13 as part of social service, helping them develop foundational knowledge in technology.   **Auguat-December 2023**

Volunteered in organizing a hackathon at Tecnológico de Monterrey   **September 2024**