# AMHED CORTES

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## **EDUCATION**

## Instituto Tecnológico de Estudios Superiores Monterrey

Bachelor's Degree in Computer Technologies Engineering Relevant Courses:

- Object-Oriented Programming
- Data Structures and Fundamental Algorithms Programming
- Internet of Things Implementation
- Device interconnection
- · Software Construction and Decision Making

August 2022 - June 2026 GPA 88.4/100

## **SKILLS**

- Programming Languages: Python, JavaScript, HTML, C#, C++, R, Matlab, Arduino
- Frameworks: React, .NET
- Databases: MySQL
- Tools: Node.js, GitHub, Unity, Oracle Apex, Excel, Packet Tracer
- Languages: English level B1 Intermediate, Spanish Native

## **NOTABLE PROJECTS**

#### **Multi-Agent TrainRoute Simulation**

August 2024 - September 2024

- **Developed an autonomous warehouse simulation** using AgentPy (Python) and Unity, integrating Q-Learning to train robots for optimal task handling and collision avoidance.
- **Designed an intelligent Q-Learning policy** to allow robots to dynamically adjust their paths, optimize task allocation, and reduce manual routing efforts.
- Enhanced the system's flexibility with real-time data analysis with 2D and 3D visualizations, enabling the robots to learn continuously and improve task execution without human intervention.

## Gamified Learning Platform for Employee Training

February 2024 – May 2024

- Developed, in collaboration with a team, a cutting-edge web application using React JS and Express to encourage employees to complete programming courses through gamification where course progress provided advantages in a Unity-based clicker game.
- **Designed an interactive admin panel** for precise monitoring of user progress, leveraging SQL Server on Google Cloud for robust data management and reporting.
- Integrated various technologies such as React JS, Express, and Unity to create an engaging and motivating user experience, improving the effectiveness of employee training programs.

### OTHER INFORMATION

## Ikusi Velatia Recognition

June 2024

• Received recognition in a university project for having the best network design for a medium-sized company using a three-layer network model in Cisco Packet Tracer.