# FELIPE RAMOS

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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

August 2022 - June 2026 GPA 90.12/100

## **SKILLS**

- Programming Languages: Python, JavaScript, HTML, CSS, C#, C++, R, Matlab, Arduino
- Frameworks: Flask, Express, React, .NET, scikit-learn, NLTK
- Databases: MySQL, Microsoft SQL Server
- Tools: Node.js, GitHub, Google Cloud, Postman, Unity, Oracle Apex, Excel, Packet Tracer
- Languages: English level C2 Advanced, Spanish Native

### NOTABLE PROJECTS

# **Multi-Agent Warehouse Simulation**

#### August 2024 - September 2024

- **Developed an autonomous warehouse simulation** using 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.

# Spam Filtering using NLP

June 2024

- **Developed a spam filtering system** using Natural Language Processing (NLP) techniques and machine learning models (SVM and Random Forest) in Python.
- Implemented integration with the Gmail API to demonstrate spam filtering in a real environment, allowing users to classify emails and move them to specific spam or ham folders.
- Used libraries such as scikit-learn, NLTK, and Flask to build an interactive web application that showcases the filter's real-time functionality.

# **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.

#### LEADERSHIP AND ACTIVITIES

# 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.

# Vice President of the Astronomical Society at Tecnológico de Monterrey

February 2024 - Present

- Coordinator and teacher of the Cosmonauts project, where I teach astronomy to more than 50 students.
- · Supervisor and collaborator of Quasar, the largest scientific magazine at Tecnológico de Monterrey.