

# Luis Carlos Garcia

McAllen, Texas, United States of America

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## Summary

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Computer Science B.S. student (GPA: 4.0) with project experience building a Pathfinding Visualizer (Pygame) and a rocket-club telemetry pipeline (string parsing + metrics extraction + FastAPI backend for frontend use). Strong in Python/C++, data structures & algorithms, performance-minded problem solving, and Git/GitHub collaboration.

## Education

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University of Texas Rio Grande Valley

Edinburg, TX

BACHELOR OF SCIENCE IN COMPUTER SCIENCE, GPA: 4.0

August 2024 - Present

- Relevant Coursework: Algorithms & Data Structures, OOP, Discrete Math, Operating Systems, Organization of Programming Languages

## Projects

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Rocket Launching Club

ROCKET TELEMETRY PIPELINE

Feb. 2026 - Present

- Ingested raw transmitter strings and built a robust parser to extract key telemetry fields and derived metrics.
- Implemented validation and sanitization, then structured the data for consistent downstream use.
- Exposed processed telemetry through a FastAPI backend endpoint consumed by a frontend dashboard.

Personal Project

PATHFINDING VISUALIZER (WEB)

Oct. 2025 - Present

- Implemented BFS, Dijkstra, and A\* pathfinding in C++ and structured the logic for visualization.
- Built a React web UI to display grid-based exploration and shortest-path results interactively.
- Focused on clean algorithm separation, predictable state updates, and clear visual feedback for comparisons.

## Extracurricular Activities

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IEEE, Frontera Devs, Rocket Launchers, SHPE, VAMOS Student Org.

MEMBER

Aug. 2025 - Present

- Participated in software-focused activities and collaborated on technical projects across engineering-focused student organizations.

## Honors & Awards

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University of Texas Rio Grande Valley

UTRGV PRESIDENT'S LIST

University of Texas Rio Grande Valley

UTRGV PRESIDENTIAL SCHOLARSHIP RECIPIENT

Hispanic Scholarship Fund / VAMOS

HSF + VAMOS SCHOLARSHIP RECIPIENT