Claudio Jose Gonzalez Arriaga

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Education

Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM) *Guadalajara, Mexico*
B.S. in Data Science and Mathematics *Graduation Date: Jun. 2026(Expected)*

- **GPA:** 96/100
- **Relevant Coursework:** Computational Thinking and Programming, Object-Oriented Programming, Data Structures and Algorithms, Minimum Systems and Computational Architectures, Programmable Logic, Google Data Analytics, Applied Database Systems Course - MDC Oracle Guadalajara.
- **Academic Merit Scholarship**

Projects

SongSeeker *Oct. 2023*
Python

- Developed a Python-based music identification system inspired by Shazam, capable of identifying songs by analyzing their unique audio fingerprints.
- Utilized the Fourier Transform to extract frequency components and identify peaks in audio signals, creating a distinctive audio signature by identifying frequencies with the largest amplitude, representing unique audio characteristics.

PocketPal/HackMTY *Sep. 2023*
Python

- Played a key role in developing an AI-powered financial chatbot for Banorte's challenge at Hack Monterrey, Mexico's largest student hackathon.
- Demonstrated strong problem-solving and collaboration skills which resulted in a tangible solution that demonstrated technical prowess and real-world applicability.

IP Log Analysis *Jun. 2023*
C++

- Created an IP Log Analysis System to process network logs from an input file, organizing data into an adjacency list and implementing a hash table using quadratic probing.
- Designed a customized hash function for efficient indexing of IP addresses, enabling quick access to summarized information.
- Constructed an interactive "getIPSummary()" method allowing users to obtain comprehensive information about specific IPs, including a complete summary and a sorted list of accessed addresses.

PONG *Mar. 2023*
Verilog, ModelSim

- Implemented the classic game PONG using the Verilog hardware description language (HDL) on an FPGA platform, with simulation and testing conducted in ModelSim.
- Developed the game logic in Verilog HDL, employing a modular design for paddle, ball, scoring, collision detection, and game rules.

Leadership and Volunteering

Club de Algoritmia Guadalajara - Board of Directors *Jun. 2023 - Present*

- Leading the school's most extensive computer science club, boasting a membership exceeding 550 students.
- Mentoring individuals of all age groups, organizing weekly workshops on data structures and algorithms, conducting technical and behavioral interviews and arranging events for prospective employers.

Technical skills

Programming Languages	Python (intermediate), C++ (intermediate), Verilog (intermediate), LaTeX(intermediate), SQL(basic), Matlab(basic), R(basic)
Development Tools	Git, Jupyter Notebooks, Visual Studio Code, RStudio, Arduino, Mbed Studio