

Leonel Alejandro Montoya

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EDUCATION

Instituto Tecnológico de Monterrey <i>High School Graduate with Honors. GPA 4.0 out of 4.0</i>	Guadalajara, Mexico Aug. 2019 – May 2022
University of California San Diego <i>Aerospace Engineering and Computer Science. GPA 3.6 out of 4.0</i>	San Diego, CA Sep. 2022 – present

EXPERIENCE

Hack at UCI Best Beginner Hack <i>University of California Irvine</i> <ul style="list-style-type: none">Developed a website hosted in Google Cloud that simplifies the process of splitting bills with multiple people.Implemented a Django framework and SQLite database for the website.Led a team of two software engineers in the back-end development of the website.	2024 Irvine, CA
HackDavis Participant <i>University of California Davis</i> <ul style="list-style-type: none">Developed a website that generates a cooking recipe based on the ingredients available.Implemented a React framework and Open AI's APILed a team of three software engineers for the back-end development of the website.	2023 Davis, CA
FIRST Robotics Competition <i>Instituto Tecnológico de Monterrey</i> <ul style="list-style-type: none">Developed the mechanical aspects of a robot capable of multi-directional movement, picking up and throwing 15cm-diameter balls, and climbing parallel bars up to 2.5m.Guided new team members to enhance their understanding of robotics.Contributed to team organization and management to have the robot ready for competition before the deadline.	2020 and 2022 Monterrey, Mexico
Coding, Chemistry, Math, and Physics Tutor <i>University of California San Diego & Instituto Tecnológico de Monterrey</i> <ul style="list-style-type: none">Taught class subjects to individual students and small groups.Prepared students for school exams and college admission tests.Organized study and homework sessions for multiple students.Greatly increased the students' proficiency at school and helped them obtain college admission.	2019 – 2022 & 2024 – Present Guadalajara, Mexico; San Diego, CA
'Split It' Co-founder and CS Lead <i>University of California San Diego</i> <ul style="list-style-type: none">Co-founder and Software Engineering lead of 'Split it', a web/app application that facilitates splitting restaurant bills between multiple customers.	2024 San Diego, CA

PROJECTS

Radio Communication Protocol <i>Micropython</i> <ul style="list-style-type: none">Developed a 433Mhz radio receiver algorithm to handle data reception through high and low electrical signals. The algorithm is based on the Manchester code, a data transfer protocol.
Radio Receiver Micropython Library <ul style="list-style-type: none">Developed a Micropython library that handles 433Mhz high and low electrical signals, intended for use on a Raspberry Pi Pico with a receiver module.
RaspberryPi Robot <i>Python</i> <ul style="list-style-type: none">Developed a remote-controlled robot with infrared camera using a RaspberryPi 4 microprocessor.

TECHNICAL SKILLS

Languages: Python, C/C++, Java, JavaScript, MATLAB, Arm Assembly, HTML/CSS
Microcontrollers & Microprocessors: Raspberry Pi, Raspberry Pi Pico, Arduino
Frameworks: Django, React, React Native, SQL/MySQL, Node
Developer Tools: Linux, Git, Github, Google Cloud Platform, Visual Studio Code
Other Skills: Algorithms, Troubleshooting, Test Automation, Full Stack Development, Database, Data Visualization and Analysis, Research, Documentation, Leadership, Interpersonal Skills, Matplotlib, Pandas