

I'm a passionate and motivated individual with a strong interest in programming, automation, and robotics. Nearing the completion of my Robotics Engineering degree, I am seeking a graduate position to further enhance my knowledge and make meaningful contributions to the industry. With over a year of experience as an intern in the automotive industry, I am committed to continuous learning and professional growth.

## Education

### University of Guadalajara

Master's Degree in Machine Learning and AI – **CGPA: 9.5**

Guadalajara, México

January 2025 – Currently

### University of Guadalajara

Robotics Engineering – **CGPA: 9.8**

Guadalajara, México

January 2020 – June 2024

### CETI (Technical and Industrial Teaching Center)

Automatic Control Technologist – **Percentage: 88%**

Guadalajara, México

July 2017 – April 2019

## Experience

### Software Engineer Intern

#### Robert Bosch México

August 2023 – July 2024

Guadalajara, México (Hybrid)

- Designed and implemented a Python and Rasa framework-based Chatbot to facilitate new developer induction and provide troubleshooting assistance, complete with a local SQL database for response management, a ChatGPT-based model API for enhanced query handling, and Github for version control.
- Automating report generation for fault-mapping between customer defined fault application and ECU's real monitors using Python scripts, leveraging Pandas, Anaconda, and fuzzy logic libraries, to ensure accurate tracking of monitor-fault mappings and to guarantee software quality deliverables.
- Developed scripts to cross-reference client requirements with ECU header files, identifying potential inconsistencies and streamlining the verification process.

**Key Metrics:** Enhanced quality of deliverables and improved efficiency by 40%, reducing inconsistencies by 90%.

### Robotics Intern

#### Intelligent Systems Laboratory

Jun. 2022 - Aug. 2023

Guadalajara, México

- Supported the development of research on consensus algorithms for the Turtlebot robot platform and other holonomic robots using motion capture technology, optical tracking (OptiTrack), and ROS drivers on a Linux environment.
- Extensively worked with Linux in the assembly, programming, and testing of UAV units, as well as the implementation of monocular and stereoscopic visual-inertial odometry algorithms focused on indoor flights.
- Performed PCB and circuit design to synchronize measurements from optical and inertial sensors at the hardware level, which was required for the implementation of visual odometry.

**Key Metrics:** Modified existing ROS/ROS2 C++ drivers in a Linux environment to synchronize visual-inertial measurements and developed new drivers to control holonomic robots and UAV kinematics

## Projects

### Chat React Component | [Live](#) | [Github](#)

React JS, Express, MongoDB, Chakra UI, Stripe

- Give abstract overview of what this project is about and what it does
- Keep **highlighting** the key points and include numbers if you can, they help
- Explain about major features of your project, don't write something you didn't make
- Features:** Search, Rest APIs, Realtime database, High performance, Responsive UI, etc.

### Omni-Driver | [Live](#) | [Github](#)

React JS, Firebase, Tailwind CSS

- Don't overflow your resume with projects, just keep the projects you are proud of and you can explain it in detail to interviewer
- If you have a lot of projects you can try to keep the ones depending on company you are applying to (E commerce for Amazon, Video Streaming for Netflix, etc.)
- Features:** Search, Rest APIs, Realtime database, High performance, Responsive UI, etc.

## Technical Skills

**Languages:** Python, Javascript, Typescript, HTML, CSS, C/C++

**Frameworks:** Tensorflow, Pandas, React JS, Next JS, Node, Express JS, FastAPI, Styled components, Tailwind

**Databases:** SQLite, PostgresQL, Supabase