

# Fernando Hernandez Cantu

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<https://github.com/Fernando94654>

## EDUCATION

### CBTIS No. 36 Campus Monclova, Coah.

Aug 2022 – Jun 2024

*Technical High School in Mechatronics – Awarded academic excellence*

*GPA 99/100*

### Monterrey Institute of Technology and Higher Education, Campus Monterrey - ITESM

Aug 2024 – Jun 2028

*B.S. in Robotics and Digital Systems Engineering*

*GPA 96.8/100*

## PROJECTS

### Robocup @Home

May 2025 - Present

*Member of the computer vision and robotic manipulation teams*

- Point Cloud optimization for 3D perception;
- Objects detections using YOLO, OpenCV, ROS and Docker.

### SWE Training by RoBorregos

May 2025 - Present

*Member of the development team for a web page to manage weekly problems, resources and leaderboard rankings*

- Development using T3 stack;
- Linked with Leetcode.

### Robocup Rescue Maze Jr.

Dec 2024 – May 2025

*Developed an autonomous robot for navigating a maze and deploying rescue kits, earning 2nd place at the Robotics Mexican Tournament representing RoBorregos.*

- Developed a computer vision system to detect victims using a **TensorFlow model** and **OpenCV in Python**;
- Developed an autonomous control and navigation system;
- Led the project as team captain, coordinating development and competition.

### Candidates by RoBorregos

Aug 2024 – Nov 2024

*Developed an autonomous robot, earned 1st place in the annual RoBorregos contest.*

- Robot focused on navigating mazes, grabbing objects, and following lines;
- Implemented Arduino with multiple sensors such as encoders, gyroscope, infrared sensors, color sensor, and ultrasonic sensor.

## SKILLS

### PROGRAMMING LANGUAGES

3 years: C++

2 years: Python

1 year: R, MATLAB, TypeScript, JavaScript

### TECHNOLOGIES

TensorFlow, OpenCV, Git, Ubuntu, Bash, VS Code, Arduino, HTML, CSS, Tailwind, Node.js, React, Next.js, T3, ROS2, Docker, YOLO, Proteus, EasyEDA, SolidWorks.

### OTHER AWARDS AND COMPETITIONS

**Bronze Medal** in the National Mathematics Olympiad for Elementary and Middle School Students **ONMAPS** (2021)

**Bronze Medal** in the National Mathematics Olympiad for High School Students **ONMB** (2024)

**Second Place** in the National Academic Festival (**DGTI**) – **Team Category** (2023)

### LANGUAGES

Spanish Native

English Advanced (C1)

French Basic (A1-A2)

## SOFT SKILLS

Time management, Teamwork, Effective communication, Desire to learn, Work ethic, Leadership