# ALEJANDRA COETO SANCHEZ

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Web page (portfolio): https://alecoeto-portfolio.vercel.app/

## **EDUCATION**

Tecnológico de Monterrey **Computer Science Engineering** 

Expected: June 2026 GPA: 98.5/100 Prepa Tec Eugenio Garza Lagüera (2019-2022) International Baccalaureate Diploma

IB score: 42/45 GPA: 98/100

### **PROJECTS**

### Movie & Show Tracker

July 2023 - Present

- Developed a web app to keep track and search for trending shows and movies, make a watch list, rate content and keep discussion groups with friends and the community.
- Used React and Tailwind for front end, TypeScript, Prisma, TheMovieDB API, and MongoDB for back end and NextAuth and Google OAuth for user authentication. Deployed successfully in Vercel.

## **Roborregos Web**

May 2023 - Present

- Working on the authentication and registration of users for an **inventory webpage**.
- · Using React and Tailwind for the front end, Typescript, Prisma and Postgresql for back-end and data management and Azure AD for user authentication.

## **ICPC**

Nov 2022 - Present

• Actively competing with a team of three in ICPC programming contests. Coding in C++.

## **Robocup Soccer**

Dec 2022 - Apr 2023

- Developed two soccer playing robots by programming sensor libraries, vision and movement algorithms.
- Used arduino CLI and CPP for robot control and micro-python for computer vision algorithms.
- Achieved **3rd place** with my team of three in the national Robocup Soccer L. competition with **Roborregos**.

## Hackathon Caterpillar

May 2022 - Jun 2022

- Created a smart shower head prototype using Arduino, featuring an electrovalve system programmed with temperature and ultrasonic sensors. Designed a CAD product.
- Achieved **first place** with my team of three.
- Presented the proyect in an interview with Bar Emprende, summarized in the MIT Sloan Management Review.

## Agenda Desktop App

Aug 2021 - Mar 2022

- Developed a desktop application for a small business, integrating an agenda and customer record system.
- Used iava, OOP, searching and sorting algorithms, stacks, hashtables and libraries for calendars and editing of xlsx files.

## **LEADERSHIP**

#### Roborregos

Dec 2022 - Present

- Software developer at the representative Robotics Team from Tecnológico de Monterrey
- Competed in regional and national robotics tournaments representing ITESM.
- Currently part of the Robocup @Home team, developing in **ROS** and **machine learning** for **computer vision**.

## WIT

Mar 2023 - Present **Vicepresident** 

- Coordinating the student group Women in Technology from Tecnológico de Monterrey as vicepresident.
- Organizing events with my team to enhance the progress of women in tech and promote inclusiveness.
- **Taught programming** and app development with the MIT App Inventor tool to 20 middle school students.

#### **VantTec**

Aug 2022 - Present

- Joined the student research group Non Tripulated Autonomous Vehicles from Tecnológico de Monterrey in the Roboboat team on the mechanics and software areas.
- Currently learning Ros 2 (Robot Operating System).

#### **VOLTEC Robotics**

Aug 2019 - Present Mentor

- Leading the engineering department of the high school team VOLTEC Robotics (30 students).
- **Teaching countinously robotics** to more than 20 3rd grade students and over 20 highschool students.
- Mentoring the FIRST FTC (9 students) and FRC (over 20 students) teams, achieving top 10 place in the national FTC competition and earning a place on the FRC world championship.

## PROGRAMMING LANGUAGES

### **TECHNOLOGIES**

LANGUAGES

3 years 1 year <1 year

C++, Python

Javascript, Typescript, Swift, Matlab, R

Git, HTML, CSS, React.js, Next.js, TailwindCSS, ROS, ROS2, OnShape (CAD), Lightroom, Arduino, MongoDB, VSCode, MacOS/ Linux environments, MySQL, Azure Services, Node.js, Bash, Prisma, OAuth, Vercel.

English (B2) German (B1) Spanish (Native)

## **AWARDS**

April 2023	3rd place in the Robocup Soccer Mexican Tournament	
April 2023	Best Technical Challenge RCJ TMR 2023	

June 2022 1st Place in Educar Niñas Cambia el Mundo hackathon (teams) May 2022 Diploma for student development and sport leadership

April 2023 Distinguished Students in Engineering Recognition May 2022 Diploma Orgullo Prepa Tec and Best Grade Averages