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

EDUCATION

Tecnológico de Monterrey Computer Science Engineering

Aug 2022 - June 2026
GPA: 98.5/100

Relevant courses:
Data Structures (C++)
Object Oriented Programming (C++)
Computational Thinking (Python)

Prepa Tec Eugenio Garza Lagüera (2019-2022) International Baccalaureate Diploma

IB score: 42/45
GPA: 98/100
Academic Honors

Relevant courses:
Computer Science HL (Java) 7/7
Business and Management HL 7/7

PROJECTS

Frida-Assistant

Sept 2023
1st Place

- Developed a **Next app** that allows users to store information, analyze it and find data through a semantic search and **Open AI chat**.
- Achieved **1st place** out of over 100 teams with my team of four in **HackMty 2023** in the Softek challenge.
- Developed the **front end** using **React** and **back end** to connect with the **cloud PostgreSQL database** using **TRPC**.
- Integrated text to speech using **AWS Polly**, reading document information live.

Roborregos Web

May 2023 - Present

- Developed the page for authentication and registration of users for an **inventory webpage**.
- Using **React**, **Tailwind** and **Formik** for the front end. Built the back end using **Typescript**, **Prisma** and **Postgresql** for data management and **Azure AD** for user authentication, allowing users to add or edit their information.

Movie & Show Tracker

July 2023 - Aug 2023

- Developed a dynamic 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**.

Hackathon Caterpillar

May 2022 - Jun 2022
1st Place

- Created a **smart shower head prototype** using **Arduino**, featuring an electrovalve system programmed with temperature and ultrasonic sensors. Designed a CAD product.
- Achieved **1st place** with my team of three out of 16 teams.
- Presented the project in an interview with *Bar Emprende*, summarized in the **MIT Sloan Management Review**, reaching 1.2 K views.

COMPETITIONS

Robocup @Home

Aug 2023 - Present

- Developing **computer vision** algorithms for the **Face Detection** and **Recognition** module using **OpenCv**, **Mediapipe** and **Face-recognition**.
- Developing a display to visualize current robot states and execute basic commands using **ROS** and **React**.

ICPC Grand Prix

3rd Place

- Actively participating in **ICPC** (International competitive programming competition)
- Achieved **3th** place with a team of three in the campus placement of ICPC Mexico's Grand Prix. (Sept 2023)

Robocup Soccer

3rd Place

- Developed two autonomous soccer playing robots by programming sensor libraries, vision and movement algorithms.
- Used **arduino CLI** and **C++** 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**. (Apr 2023)

LEADERSHIP

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, impacting over 60 students.
- Taught programming** and app development with the MIT App Inventor tool to 20 middle school students.

Roborregos

Dec 2022 - Present

- Software developer at the **representative Robotics Team** from Tecnológico de Monterrey
- Competed in regional, national and international robotics tournaments representing ITESM.
- Led** the mentoring and selection team for the program **Candidates 2023**. (On-campus robotics competition)

VantTec

Aug 2022 - Present

- Joined the student **research group** *Non Tripulated Autonomous Vehicles* from Tec de Monterrey in the software Roboboat team.
- Developing packages and algorithms to control an autonomous boat using **Ros 2** (Robot Operating System).

VOLTEC Robotics

Aug 2019 - Present
Mentor

- Mentoring the **FIRST FTC** (20 students) and **FRC** (over 20 students) teams, achieving top 10 in the national FTC competition (2023) and earning a place on the FRC world championship (2023).
- Teaching continuously robotics and java programming to more than 40 middleschool and highschool students.
- Led the engineering department of the high school team VOLTEC Robotics (30 - students). (2022)

PROGRAMMING LANGUAGES

3 years	Java
2 year	C++, Python
1 year	Javascript
<1 year	Typescript, Swift, Matlab, R

TECHNOLOGIES

Git, HTML, CSS, React.js, Next.js, TailwindCSS, ROS, ROS2, OnShape (CAD), Lightroom, Arduino, Node.js, MongoDB, VSCode, MacOS/ Linux/ Windows environments, SQL, Bootstraps, Azure Services, Lightroom, Node.js, Bash, Prisma, OAuth, Vercel, TRPC, OpenCv, mediapipe, face-recognition, AWS (Amazon Web Services), OpenAI, Flask.

LANGUAGES

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

AWARDS

Oct 2023	1st place in NASA Space Apps Hack - Campeche (teams)
Sept 2023	1st place in HackMty 2023 in the Softek Challenge (teams)
April 2023	3rd place in the Robocup Soccer Mexican Tournament (teams)
April 2023	Best Technical Challenge RCJ TMR 2023 (teams)

April 2023	Distinguished Students in Engineering Recognition
June 2022	1st Place in <i>EducAR Niñas Cambia el Mundo</i> hackathon (teams)
May 2022	Diploma for student development and sport leadership
May 2022	Diploma <i>Orgullo Prepa Tec</i> and Best Grade Averages