# **ALEJANDRA COETO SÁNCHEZ**

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## **EDUCATION**

# Instituto Tecnológico y de Estudios Superiores de Monterrey - ITESM

Computer Science Engineering (Expected June 2026) GPA: 98.5/100

# **WORK EXPERIENCE**

#### Microsoft - Azure Cosmic

SWE Intern (Sept 2 - Dec 20) Redmond, Washington

#### Google - Ads

SWE Intern (Jun 25 - Aug 25) Mountainview, California

### Oracle - 5G Networks

SWE Intern (Feb 25 - Jun 25) Monterrey, Mexico

### Google - Cloud Apps

STEP Intern (Jun 24 - Sept 24) Sunnvvale, California

- Currently completing SWE internship in a team that manages infrastructure and internal platforms for other teams.
- Working in different microservices, learning and developing with Go, Kubernetes and Azure DevOps.
- Onboarded 17 build pipelines into Azure Build Health for monitoring. Developed YAML templates to publish test results with metadata.
- Added new stage to the video discovery pipeline to find and post-process brand mentions in a youtube video. (C++ and SQL)
- Optimized Gemini inference for brand segment detection, boosting precision from 74% to 95% by building Colab workflows and a custom evaluation system. (Python)
- Developed a new component to display brand mentions in the Ads platform (Angular-dart) and designed backend changes (Java).
- Software Engineering intern of Oracle's 5G Networks team, working in backend microservices development.
- Utilized java, docker, and kubernetes to develop, deploy, and manage microservices of the 5G infrastructure.
- Resolved bugs and implemented enhancements, collaborating within an Agile development environment.
- Developed new "Show last known location" feature for company-owned lost devices through the Admin Console
- Displayed a map dialog with a marker and location details, including geocoded address, fetched from the device. Completed design process and full-stack implementation using java, javascript, gRPC, Maps API and internal frameworks.

# **PROJECTS**

# **Swift Student Challenge**

Feb 2024, Feb 2025 Distinguished Winner & Winner

HowlX Feb 2025 - May 2025

# **Security system IOT**

Nov 2023

1st Place

- Developed a rock climbing app using Swift, AR and Reality kit to provide tips and track user progress. (2024)
- Developed an app using Vision Framework and CreateML to empower visually impaired indoor climbers by providing a colorblind mode and an audio-guided mode that provides descriptions of reachable holds based on current body position. (2025)
- Recognized as Distinguished Winner 2024 (only 50) and Winner 2025 (only 350), attending Apple's Worldwide Developer Conference.
- Developed solution for **NEORIS**'s Digital Consulting area to analyze customer service conversations by providing real-time transcription, emotion analysis and key metric reports to improve customer service.
- Programmed full-stack app with NextJs, integrated Al and embedding modules and developed companion Swift iOS app.
- Achieved 1st place at Expo-Ingenierías (over 100 teams) and recognized as best development solution by Neoris (6 teams) Developed a security system for elders with face-recognition entry and sensor log display via React and AWS WebSocket API.
- Programmed a face recognition API using flask, docker and python, hosting it with AWS EC2 and ELB.
- Presented project in Expo-Ingenierías 2023 (over 100 teams) and achieved 3rd place in the entrepreneurship category.

# COMPETITIONS

# Robocup @Home

Aug 2023 - Present 2nd Place

- Lead of the computer vision team, implementing algorithms for human analysis (identification, pose analysis, etc.), and object detection. Integrated modules for a service robot using ROS2, Docker, OpenCv, Mediapipe, Re-ID models, YOLO and clustering algorithms.
- Achieved 2nd place with my team in the National Robotics Tournament, classifying to the international competition.

# **ICPC Grand Prix**

Feb 2023 - Present 3rd Place

- Actively participating in ICPC (International competitive programming competition) and ITESM Competitive Programming Club.
- Achieved top 25 in ICPC Mexico National Finals with my team of three (Nov 2024).
- Achieved 3rd place with a team of three in the campus placement of ICPC Mexico's Grand Prix. (Sept 2023)

# **LEADERSHIP**

## Roborregos

President (Dec 22 - Present)

- Software developer and president of the Representative Robotics Team from Tecnológico de Monterrey: RoBorregos.
- Competed in regional, national and international robotics tournaments representing ITESM.
- Led and organized the yearly on-campus robotics competition Candidates 2024, with over 300 participants.

Vice-president (Mar 23 - Jun 24)

- 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 100 students.
- Taught programming and app development with the MIT App Inventor tool to 20 middle school students.

#### PROGRAMMING LANGUAGES

# **TECHNOLOGIES**

# **LANGUAGES**

English (C1)

German (B1)

Spanish (Native)

4 years Java, C++, Python 3 years Javascript, Typescript 2 years <1 year Go, Dart, C#, Matlab

Git, HTML, CSS, React.js, Next.js, TailwindCSS, ROS, ROS2, OnShape (CAD), Docker, Arduino, Node.js, MongoDB, VSCode, MacOS/ Linux environments, SQL, Azure Services, Node.js, Bash, ZSH, YOLO, Computer vision, Prisma, OAuth, Vercel, TRPC, gRPC, OpenCv, mediapipe, face-recognition, AWS (Amazon Web Services), OpenAl, Flask, Conda, ASP.NET, Unity, gRPC, Google Cloud.

# **AWARDS**

Jun 2025	6th place in Robocup @Home International competition (teams)	April 2024	2nd place in Robocup @Home National Competition (teams)
Feb 2025	Swift Student Challenge Winner 2025	Feb 2024	Swift Student Challenge Distinguished Winner 2024
May 2025	2nd place in Robocup @Home National Robotics competition	Oct 2023	1st place in NASA Space Apps (Campeche)   Top 40 Global (teams)
Oct 2024	1st place in NASA Space Apps - Mugica (teams)	Sept 2023	1st place in HackMty 2023 (teams)
Sept 2024	Distinguished Students in Engineering Recognition (top 1%)	April 2023	<b>3rd place</b> in the Robocup Soccer Mexican Tournament (teams)