

EDUCATION

- **Tecnológico de Monterrey** Monterrey, Mexico
Bachelor of Science - BS, Computer Science; GPA: 3.84
August 2021 - December 2025
- **Apple Developer Academy** Naples, Italy
University of Naples Federico II
September 2024 - June 2025

EXPERIENCE

- **Software Engineer** Monterrey, Mexico
Innovation Gym
January 2024 - July 2024
Led a team of three in **agile software development**, building a **full-stack** web application for a COIL platform connecting **10+ universities**, and projected to reach 1,000 users in its first year.
 - **Business & DevOps:** Implemented **function point** analysis, **SRS** documents, and iterative delivery.
 - **T3 Stack:** Developed a full-stack application using **Next.js** and tRPC in TypeScript, hosted on Vercel.
 - **Supabase:** Designed and implemented data models and secure file storage using Supabase and **PostgreSQL**.
- **Back End Developer** Monterrey, Mexico
RT Conducción Integral
April 2023 - August 2023
Built the back end of an **IoT** application for Nuevo León's **water service company**, resulting in improved efficiency of water delivery for small businesses, and data analytics for administrators.
 - **Django Stack:** Utilized **Django REST Framework** in Python, Docker, PostgreSQL, and JWT authentication.
 - **REST Development:** Built & documented the API schema, conducted end-to-end tests with automated scripts.
 - **PEP8:** Ensured code quality by adhering to PEP8 standards.

RECENT PROJECTS

- **Semitones:** Published an **instrument tuning** app for iOS. Winner of Apple's **Swift Student Challenge**. Powered by native frameworks: SwiftUI, UIKit, Accelerate, and CoreAnimation. Available now on the **App Store**.
- **Hear Me Out!:** Multiplayer debate party game, designed for **Apple TV & iPhone** devices. With Apple's native **MultipeerConnectivity**, players use their iPhone devices to interact with the TV. Available now on the **App Store**.
- **Aqualia:** Developing an app for intuitive insight on the water quality of Naples, Italy, utilizing **MapKit & Swift Charts**. Available on **TestFlight**. Currently working on **localization** & integration with official data sources.
- **dominoes.mx:** Developing and maintaining an online domino game using **TypeScript & WebSocket** as a personal project with my father. I'm currently improving the **bot player algorithm** and optimizing for **mobile platforms**.
- **DEVOTION:** Developed a **Google**-integrated project management web application with **Angular & Django**, capable of tracking nested projects & tasks, aimed at elevating the ease of collaboration of student groups at Tec de Monterrey.
- **Vitalink:** Collaborated with doctors at Tec de Monterrey to build a **full-stack iOS application** for efficient symptom communication & logging between patients and doctors. Created with **SwiftUI** and a **Django** back end stack.
- **spotifyatlas:** Published a Python **PYPI package** for seamless interaction with **Spotify's web API**, simplifying data retrieval and programmatic interaction with music.

LICENSES & CERTIFICATIONS

- **C2 English Proficiency:** Duolingo English Test
- **Cisco:** Cisco Networking Academy CCNA 1-3
- **Google:** Cybersecurity Professional Certificate
- **Google:** IT Support Professional Certificate

SKILLS

- **Languages:** Swift, Python, TypeScript, JavaScript, C++, C#, SQL, Matlab
- **iOS Development:** SwiftUI, UIKit, CoreAnimation, Core/SwiftData, MapKit, Accelerate, MultipeerConnectivity
- **Web Development:** Django REST Framework, React, Next.js, Angular, WebSocket, Docker, AWS, Vercel, JWT, OAuth 2.0, Tailwind CSS
- **Other:** Bash, Cisco IOS, API Design, API Documentation, Data Modeling, Mobile UI/UX