Andres Martinez

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Education

Instituto Tecnológico de Estudios Superiores de Monterrey Hermosillo, Sonora, Mexico
B.S. in Computer Science and Technology *August 2022 - Present*

Anticipated Graduation Date: June 2026

Relevant Coursework
- Computational Thinking for Engineering
- Object-Oriented Programming
- Statistic Analysis

Projects

Medical Laboratory Website | *Vite, React.js, JavaScript, Netlify, Node.js* June 2023 – July 2023
- Developed a website for Laboratorios Obregon, a big medical laboratory focused on research and healthcare.
- The website shows the current position of the laboratory by a virtual map by using an open-source map API.
- Served as a way of learning about APIs, **Vite**, and overall Fullstack development.

Video Streaming App | *C++, Typescript, NodeJS, Git* April 2023 – June 2023
- Developed an app that stores and displays episode information about various T.V. and Movie shows in a text-based format.
- Developed mostly in **C++**, used **Typescript** and **NodeJS** for development and testing purposes.
- Deployed the app as an open-source project by Github and collaborated in teams using **Git**.
- Served as a way of comprehend more complex Object-Oriented Programming concepts, like polymorphism, inheritance and operator overloading, among others.

Data Analysis Toolkit | *R Language* March 2023 – April 2023
- Collaborate in pairs, to develop a series of tools that can help analyse and identify different types of virus genome based on their DNA.
- This toolkit was completely developed in the **R Language** and R Studio environment.
- Served as an introduction of Biology in the Computer Science field and how these two interact with each other.

Mariotte and Torricelli | *Javascript, MATLAB, Github Pages, Git* February 2023 – March 2023
- As part of a collaborative team of four, contributed to the development of an interactive platform that models the movement of Mariotte's bottle and demonstrates Torricelli's law of physics.
- Mostly developed in **Javascript**, employed **MATLAB** for statistical analysis, advanced capabilities for rigorous testing and data validation purposes.
- Deployed in **Github Pages**. Acted as a means of integrating statistical analysis with real-world experimentation.

Medical Data Storage System Mock-Up | *C, C++, Python* November 2022 - December 2022
- Collaborated in pairs, to create a mock-up of a system that registers patients with symptoms and disabilities, based on this information the system can detect if the person is considered to "in risk" or if it has symptoms related to COVID-19.
- Mostly developed in **C++**, used **Python** for development purposes. Early versions of the project were made in **C**.
- Served as an introduction to more technical concepts surrounding Object-Oriented Programming, like encapsulation and polymorphism

The Webb Interactive Project | *Python, HTML, CSS, Javascript* September 2022 – October 2022
- Collaborated with a team to create a videogame and a quiz website that showed the capabilities of the James Webb Space Telescope.
- Used as an entrance to the NASA Space App Challenge in-campus competition
- Served as an introduction to Hackathon events as well as practice for communication of technical terms.

Technical Skills

Languages: Python, C/C++, Typescript, JavaScript, HTML/CSS, R, MATLAB, Arduino
Frameworks: React, Node.js, TailwindCSS, SwiftUI, Vite
Developer Tools: Git, Heroku, VS Code, Visual Studio, PyCharm, IntelliJ, XCode, Github Codespaces, Neovim
Libraries: Pygame, NumPy, Matplotlib