

Juan Diego Méndez

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EDUCATION

The University of Texas at Austin

May 2025

Bachelor of Science in Computer Science

Relevant Coursework and education:

Data Structures · Discrete Math · Computer Architecture · Intro to Probability and Statistics · Principles of Computer Systems · Matrices and Matrix Calculations · Cyber-physical systems · Game Technology · Programming for Performance

Certified Online Courses

2019

[MIT 6.00.1x: Introduction to Computer Science and Programming Using Python](#)

PROFESSIONAL EXPERIENCE

Monkeyflux S.L.

June – August 2023

Software Engineer Intern

- Enhanced MonkeyFlux Babuin's front-end functionality by improving the websites UI and addressing code issues. This involved bug tracking and fixing, new feature implementations, and active collaboration using TypeScript, HTML, and CSS in a local environment through a Docker container and WSL.
- Consolidated an entire section of the platform by virtually upgrading its code to enhance user-friendliness and usability, while also ensuring its proper functionality.

PROJECTS

VirtualMouse AI - Computer Vision Program (Hackathon Project)

2023

- Designed a real-time hand tracker, gesture recognition and control system using Python, Google's Mediapipe model, OpenCV & PyCaw libraries. The program is capable of tracking and interpreting hand gestures to operate all Windows Operating Systems for disabled accessibility.
- Implemented threading to streamline gesture recognition and mouse movement concurrently & speed up processes.

AR Game

2021

- Developed an Augmented Reality (AR) video game using Unity and Visual Studio. The game consists of a 3D maze overlaid on a real-world environment using a QR code, allowing players to physically move around the QR code to complete the maze. It was developed making use of C# and raycasting techniques for game logic and interactivity.

Pintos

2023

- Completed the Pintos toy operating system for the 80x86 architecture, implementing priority scheduling, stack-based argument passing, system calls, virtual memory, and multi-threaded file system conversion.

iOS App

2020

- Designed and built an iOS task management application using C# in Visual Studio running on a Windows operating system. The use of Xamarin. iOS made cross-platform development possible. Implemented functionality that lets users create, edit, set priority, and track tasks effortlessly.

TECHNICAL EXPERIENCE AND SKILLS

Programming Languages and skills: C, C++, C#, Python, Java, Java Script, TypeScript, HTML, CSS

Development: Unity, Visual Studio, Visual Studio Code, Eclipse, Docker, Bitbucket, GitHub, GitLab

Computer/Hardware Skills: Linux, Google Workspace, Windows, Microsoft tools, iOS, Arduino, RPi 4

Languages: English (Proficient), Spanish (Proficient)