Jesus Montero

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Education

Northwestern University, Evanston, IL 2024

Bachelor of Science in Computer Science

Skills

Languages: Python, C, C ++, C#, HTML, CSS, JavaScript, TypeScript, SQL

Technologies & Tools: Git/GitHub, AWS, EC2, S3, React, Firebase, Expo, Flask

Experience

OnSite

• Developed a React web application for Poatek, integrating the company's REST API to display employee status and optimize meeting planning in a hybrid work environment. Focused on delivering a clean, user-friendly interface while maintaining clear communication with clients, ensuring project alignment with realistic expectations.

PhotoApp

• Built and deployed a multi-tier cloud-native application using AWS EC2, S3, and RDS. Developed a Node.js and Express API to manage user and image data, while creating a Python client to enhance security by controlling access through the service layer. Deployed the application with AWS Elastic Beanstalk, automating EC2 instance provisioning and streamlining API exposure.

Scrap Wars

• Co-developed a node-based strategy game in Unity (C#) with a team of two, engineering and optimizing core gameplay mechanics, including node upgrade progression, adaptive enemy AI, and a dynamic power bar to enhance strategic depth and player engagement across multiple maps.

Avatar the Last Airbender Wiki

• Developed a fan wiki using HTML, JavaScript, CSS, and Anime.js, integrating APIs for dynamic character and episode data, building a responsive trivia game, and implementing filtering mechanisms for user-specific content, while enhancing the UI with animations and optimizing for cross-device compatibility.

Northwestern Formula Racing

• Led software development for temperature and wheel boards in a Data Acquisition System (DAQ), normalizing sensor data using C++ drivers and integrating it with the Controller Area Network (CAN) bus.Collaborating with the DAQ hardware team to test ESP32 microcontrollers with sensors via Platform.IO, ensuring reliable data transmission through the TSMaster program.

• Trained three team members in C++ fundamentals, GitHub version control, and Platform.IO setup, dedicating 4–6 hours per week to mentorship and system integration.

Pulse

• Designed and constructed a multifunctional alarm clock using C++, integrating an LCD screen, heartbeat sensor, and joystick with custom driver code. Engineered a challenge-based alarm system requiring users to complete tasks like reaching a target heart rate, solving trivia, and memorizing joystick patterns.