

Francisco Monarrez Felix

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EDUCATION

University of San Diego

Graduation May 2025

Dual Bachelor's Degrees in Computer Science and Business Administration

GPA: 3.52

- Relevant coursework:** Computational Problem Solving, Programming Abstractions and Methodologies, Advanced Computational Problem Modeling, Data Structures and Algorithms, Human-Centered Systems, Operating Systems, Object-Oriented Design and Programming
- Affiliations:** Member of the Association for Computing Machinery (ACM), Member of the Society of Hispanic Professional Engineers (SHPE), Member of the Business Administration Society, ColorStack
- Certifications:** IBM Accelerate Software Developer Certification, JavaScript for Web Developers (Johns Hopkins University), AWS Certified Solutions Architect, Microsoft Azure Fundamentals, Google Associate Cloud Engineer

EXPERIENCE

Tech Operations Assistant, Campus Recreation

August 2022 – Present

University of San Diego

San Diego, California

- Spearheaded the technical management of the Campus Recreation website and app, achieving a 20% increase in user engagement through real-time updates and UX enhancements.
- Innovated digital-physical operation integration, streamlining equipment rental and check-in processes by 30%.
- Analyzed website and app analytics, driving improvements in customer service and operational efficiency.

Tech Developer Intern

May 2023 – August 2023

Sponsors for Educational Opportunity (SEO)

Remote

- Completed 300+ hours in computer science and software engineering, focusing on full-stack development, data structures, and algorithms.
- Developed diverse full-stack applications, including a Weather App and a College Social Media App, using HTML5, JavaScript, CSS3, Python (Flask), and MySQL.
- Excelled in API integration and database design, enhancing user experience and application functionality.

IBM Accelerate Program: Software Track Participant

May 2023 – August 2023

IBM

Remote

- Completed a competitive (7.4% acceptance rate) software development program and excelling in 4 advanced coding exams and collaborative coding projects.
- Mastered full-stack development, SDLC, and GitHub, aligning with industry best practices.

PROJECTS

Shell (Command Interpreter) Project

- Engineered a command interpreter (shell) for command execution, supporting both foreground and background processes, and process reaping.
- Enhanced user control with internal command recognition and PATH variable management for executable location.

Memory Simulator Project

- Designed and implemented a memory simulator encompassing DRAM, Cache, and Virtual Memory, demonstrating an in-depth understanding of computer architecture.
- Enabled advanced memory management features, including a TLB with round-robin replacement and efficient address translation.

Text Compressor and Decompressor

- Developed efficient text compression and decompression programs using chained hashing and ideal hashing algorithms.
- Optimized dictionary organization for improved processing speed, and implemented user-friendly interfaces for enhanced usability.

TECHNICAL SKILLS

- Languages and Technologies:** Bash (Command Line), C, C++, CSS, Figma, Flask, Git, HTML, Java, JavaScript, MySQL, Python, React, SQL