Miguel Saenz

Mobile: +1 (310) 923-2435 | saenzm4307@gmail.com
Personal Portfolio Site: www.migsaenz.com

***Objective*:** Senior Computer Science Major with 10 years of experience in information technology, robotics design, and programming. Seeking a position to kick off my career in low-level programming, IT, or systems administration.

Bachelor of Science in Computer Science	**Expected Graduation:**	June 2025
California Polytechnic State University: San Luis Obispo	**GPA:**	3.3

Academic Projects

SUMMER UNDERGRADUATE RESEARCH PROGRAM (SURP) (June 2024-November 2024)
Worked on the development of a MatLab application that leveraged genetic algorithms to perform tradespace exploration in service of automated and human-in-the-loop team generation for a Mech-Eng Senior Project course.
Skills: Data Analysis, MatLab Programming, Artificial Intelligence/Algorithmic Research, etc.

UNDERGRADUATE RESEARCH (December 2024-Present)
Working on the improvement, containerization, and deployment of an application for the development of new mechanical product ideas via the presentation of previous patents and associativity with key ideas and functionality keywords.
Skills: MatLab Programming, Web Development, ReactJS, PostgreSQL, Python, REST API, etc.

SENIOR PROJECT (December 2024-Present)
Working on an autonomous pace-setting robot that will aid runners in maintaining a pace that they want to keep for a given run. A companion mobile app to configure the robot's behaviors such as speed and pacing that keeps track of and displays performance metrics gathered from the robot's sensors is also a planned stretch goal.
Skills: LIDAR Training, Raspberry Pi Programming, Computer Vision, ROS (Robot Operating System), etc.

Robotics

CAL POLY ROBOTICS CLUB

Strategy Lead, Room and Safety Officer, Network Administrator	23-24 Worlds Champion Finalists, Regional Tournament Champions x2, Skills Champions x2
	22-23 Regional Tournament Champions, Design Award, Worlds Qualified.
	21-22 Design Award, Worlds Qualified

FRC & FLL ROBOTICS TEAM

FRC: Engineering Director, Systems Lead, Mechanical Lead FLL: Project Lead, Lead Programmer	2018 - 2019: Judge's Award at Del Mar Regional Competition
	2017 - 2018: Rookie Inspiration Award (Celebrates a rookie team's success)
	2014-2017 FLL Robotics (Tournament Champions, Core Values 1st Place x2, Worlds Research Award 2nd Place)

Self-Driven Projects

HomeLab/Server (2021-Present)
Created a sandbox environment "HomeLab" (server) for the hosting of files and home media. Used to run virtual machines, and useful docker instances as well as experiment with new applications in a safe environment separate from daily driver systems. This server has also been used to create a unified "coding machine" that hosts all of my relevant environments and code so that I need not worry about versioning, packages, or save states across my various machines.
Skills: SSH, SFTP, Vim, Shell Management, Unraid, Hypervisor, Docker, Reverse Proxy, Remote Access, VPN, etc.

Portfolio Website (2023-Present)
Created and curated a series of personal websites for the purpose of cataloging projects, research, and other relevant experience, as well as get further practice in the programming and networking components of site creation alike.
Skills: HTML, CSS, JavaScript, Markdown, DNS management, self-hosting, etc.

Network Management (2021-Present)
Wanted to have perpetual availability of any of my machines, so utilized an interconnect via a personal VPN of all of my systems to ensure I have remote access to any and all of my personal machines. This approach to the management and administration of my own home network also extended to my role as the room officer for the Cal Poly Robotics Club as I have to administer and upkeep all the machines that the CPRC owns or uses.
Skills: SSH, SFTP, Shell Management, Remote Access, VPN, Reverse Proxy

Skills

Hard Skills: C, Python, Java, MatLab, C++, JavaScript, RISCV Assembly, ARMV8 Assembly, CUDA, Racket, SQL, CSS, HTML, MongoDB, Systems Integration, Network Management, Hardware Management.

Key Coursework: Computer Architecture, Systems Programming, Programming Languages, Artificial Intelligence, Databases, Parallel Computing (GPU Programming), Computer Security and Privacy, Distributed Systems, and Operating Systems