Mikaela Miranda
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OBJECTIVE

Engineering student seeking to contribute technical expertise in CAD, product design, and Research and Development.

EDUCATION

California State University Long Beach, *Computer Engineering and American Sign Language* *Expected: May 2027*

PROFESSIONAL EXPERIENCE

STEM-NET, *Student Assistant for CSU Chancellor* *August 2024 - December 2024*

- Assisted in research of new educational technologies, fostering innovation within the CSU system.
- Implemented a digital e-filing system using SharePoint to streamline data management and retrieval.
- Participated in funding and proposal meetings that support strategic STEM initiatives.

WestLand Group, *Engineering Intern* *June 2023 – August 2024*

- Designed CAD drafts for pipeline engineering projects using SolidWorks and AutoCAD.
- Conducted on-site inspections, collaborating with a team of 4 to ensure compliance and safety standards.
- Analyzed and documented engineering specifications for multiple CAD design iterations over a 2-month period.

Coldwell Banker, *Data Entry Assistant* *January 2022 – May 2023*

- Developed Excel spreadsheets to track and analyze spending costs, improving data reporting accuracy.
- Managed digital databases and optimized mailing lists to enhance client engagement.
- Ensured data integrity and compliance with industry regulations through organized record-keeping.

EXTRACURRICULARS

Department of Biomedical Engineering Cal State Long Beach

Hearing Loss Project, *CVRC Undergraduate Researcher* *December 2024 –Present*

- Developed 3D models of the cochlea and ear by segmenting MRI data and processing it using CAD tools.
- Designed pre- and post-surgical protocols for cochlear implantation patients to enhance surgical precision and optimize outcomes in complex cases.
- Developing a path planning algorithm for cochlear implantation using MATLAB to improve surgical accuracy and individualized treatment planning.

Department of Integrated Design, Engineering & Automation Irvine Valley College

Robotics Team, *Team Lead* *November 2022 – May 2024*

- Coordinated CAD design using Solidworks and OnShape, collaborating with electrical and software teams during testing and refinement phases.
- Optimized hardware components through CNC machining, ensuring precision and durability in robotic structures.

Applied Science and Engineering Club, *Project manager* *September 2022 – May 2024*

- Mentored general members through multidisciplinary engineering competitions, focusing on creativity and R&D.
- Oversaw project administration, including budgeting, financial analysis, and invoice processing.

PERSONAL PROJECTS

Hydraulic Arm *November 2023*

- Engineered a 3-joint hydraulic arm equipped with pressure sensors, to achieve precise object manipulation up to 6 lbs

Audio Synthesizer *February 2023*

- Designed and soldered electronic circuits for an audio synthesizer, incorporating sensors for pitch modulation based on object proximity

ADDITIONAL SKILLS

SolidWorks, Excel, Word, Soldering, Data Analysis, Blueprint Reading, HTML, ITK Snap, MATLAB, CNC