

Joel Aziangli Etchri

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EDUCATION

University of Southern California, Viterbi School of Engineering

Los Angeles, CA

Bachelor of Science in Mechanical Engineering

May 2027

- **Relevant Coursework:** Introduction to MATLAB, Statics, Physics-3:Optics and Modern Physics, Mathematical Methods in Engineering, Mechanics of Materials, Differential Equations, Thermodynamics, Fluid Dynamics, Mechatronics, Mechanical Systems, Dynamics.

PROFESSIONAL EXPERIENCE

JBS Foods

Greeley, CO

Maintenance Intern

May 2025 – July 2025

- Initiated and completed a pallet production project, which resulted in maximum product shipping efficiency.
- Utilised advanced Excel functions and Python scripts to conduct daily box production analysis of over 355 product codes and support data-driven decision making.
- Led key maintenance and engineering meetings, contributing insights and supporting upper management.
- Completed plant rotations to fully understand the complexities of running a beef plant and began acquiring a Packing House Degree. Completed Welding Safety training, alongside Tig and Stick welding education. [JBS Project Presentation](#)

USC Racing Drivetrain

Los Angeles, CA

Mechanical Engineering

May 2024 – Present

- Designed the differential and the jacking bar mount, reduced the driveline's total weight by 10 pounds, decreased the FOS of all relevant components to 2.6, and conducted FEA on various vehicle components.
- Assembled the vehicle's driveline and performed regular maintenance to ensure consistent performance on test days.

PROJECTS

AME 201 Statics

Los Angeles, CA

Tensegrity Table

May 2024 – December 2024

- Engineered a Tensegrity table using Solidworks & NX, featuring linear static FEA testing with precise engineering drawings and assemblies.
- Prepared a 10-minute-long detailed presentation for members of the USC engineering department alongside a live demo. [Tensegrity Table Powerpoint](#)

ASBME Make-a-thon

Los Angeles, CA

2nd Place Winner

January 2024

- Designed an Arduino-powered smart knee brace to assist athletes in recovering from patellar tendonitis, which 10% of recreational athletes deal with and even 30% of elite athletes.
- Integrated vibration therapy for targeted treatment and real-time planar knee motion tracking using an accelerometer. [Make-a-thon Presentation](#)

USC Makers

Los Angeles, CA

Dance-Cam

January 2025 - May 2025

- Spearheaded a frame design with a robotic camera system that autonomously tracks a dancer using a motorized vehicle and a wire-driven camera mount, enabling movement in the three axes (X, Y, Z) for dynamic framing.
- Planned a mechanical revamp and complex motion upgrades to enhance system responsiveness, allowing for multiple dancers and synchronized movement with audio inputs.

LEADERSHIP & INVOLVEMENT

Trojans FC

Los Angeles, CA

Admin

August 2024 – Present

- Organized and managed weekly training sessions for a squad of 30 university players, ensuring consistent practice schedules and effective training environments.

USC Men's Club Soccer

Los Angeles, CA

Athlete

January 2025 – Present

- Competed against different Universities and represented USC in multiple tournaments. Trained 3x a week.

Theta Tau - Kappa Epsilon Chapter

Los Angeles, CA

Programming Chair

August 2024 – December 2024

- Enhanced social engagement for 60+ members through 10+ brotherhood events with a budget of over \$8,000
- Coordinated logistics, vendor relationships, and event promotion to ensure the successful execution of chapter initiatives.

HKSA(Hong Kong Student Association)

Los Angeles, CA

Events Associate

August 2024 – Present

- Collaborated with Asian-American organisations to host fundraising events and social gatherings, strengthening cross-cultural relationships and expanding HKSA's network and impact.

SKILLS

MatLab, NX, Solidworks, Fusion360, Siemens, Excel, PowerPoint, Python, Arduino, Lathe, CNC, CAD, Welding, AutoCAD, Quality Control, Finite Element Analysis, Project Management, Communication, Teamwork, Oscilloscope,