

Charles Oh

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Education

University of California Berkeley – College of Engineering

Sophomore (May 2028)

B.S. Civil Engineering

- **Relevant Coursework:** CE30 Intro to Solid Mechanics, CE60 Structure and Properties of Civil Engineering Materials, CE93 Engineering Data Analysis, Multivariable Calculus, Physics 7A

Work Experience

Saratoga, CA – Private Tutor

September 2024 - Present

- Teaching of Pre-Calculus, and AP Computer Science A using original examples and adapting to varying learning styles.
- Boosted student grades from B- to A by personalized teaching, communication, and consistent progress tracking

Southern California Volleyball Association – Head Referee

2023 - Present

- High level volleyball refereeing experience throughout hundreds of club volleyball games of all levels from 11u to 18u
- Certified through USA Volleyball Association

ClearPath Medical – Summer Engineering Intern

June 2023 - August 2023

- Designed 5 different wires from the jacket to individual threads and 2 wire fixtures to accelerate the production process
- Completed hundreds of medically required wire tests (flex, chemical reaction, and stress testing)
- Paperwork/Project summaries required for federal medical manufacturing regulations and for purchasing customers

Omega Packaging, La Mirada – Intern: Assistant Engineer

June 2021 - July 2021

- Fixed / replaced parts on molds and machines and quality control of plastic jars and caps under guidance of head engineer
- Worked with large industrial drills, high pressure plastic injectors, many hand drills and sensitive molds

PLTW Engineering at Cerritos High School – Student

2020 - 2024

- Intense application of the Engineering Process with clear planning, collaborative problem-solving, and iterative improvement.
- Use of Onshape CAD, Arduino and hands on experience with a variety of woodworking tools (Mitre, Hand and Table Saws)
- Managed senior project team by leading discussions with efficiency and communicating with investors and key contacts

Engineering Projects

Design Contract Project Theta Tau – Project Lead | Research, Electrical Calculation, CAD

August 2025 - Present

- Research and Design of a yoke meant to transfer up to 20,000 V in nanoseconds under an NDA with contract company
- Finding the materials required to produce the yoke with proper insulation and calculating the minimum distance for resistors
- CAD of the potential yoke design with detailed drawing pages and FEA models

Vending Machine – Structural Lead | CAD, Laser-Cutting, Hand Tools Operation

February 2025 - May 2025

- Lead the design team, collaborating on SolidWorks to CAD the machine assembly
- Dedicated 80+ hours in Jacob's Makerspace laser-cutting/engraving 16 sheets of acrylic to the perfect size
- Directed construction process by delegating tasks like drilling, assembly, and finishing touches under a strict deadline

PLTW Engineering Capstone – Project Manager | Engineering Process, CAD, Pitching

September 2023 - June 2024

- Table fixture cuffs (Laser-cut, recyclable wooden cuffs for tables in special-Ed classroom)
- Wooden-Pallet Compost Box (Recycled from pallets and volleyball nets as mesh, Donated to Tetzlaff Middle School)
- Gable Vent Cover (Emergency slide on cover in case of wildfires to protect the attic of homes. Winner of a \$500, yearlong engineering competition)

Leadership and Involvement

Theta Tau Co-Ed Engineering Professional Fraternity – Emerging Events Chair

June 2025 - Present

- Founded the contracting branch of the organization by sourcing to smaller companies Pro-Bono
- Formed 2 specialized teams of 5, paired with experienced project managers to tackle AI LLM and Design initiatives
- Established a hierarchy of positions, providing for a long-term source for technical development opportunities

Cerritos High School Varsity Volleyball – Captain

2021 - 2024

- Leading players with little experience and fight for respect with a smaller sized team
- Mentorship for players from all levels of the high school program, including recruitment and brotherhood

Skills and Interests

- **Engineering Skills:** 3D Printing, Laser Cutting, Soldering, Machining, Woodworking and Hand Tools
- **Technical Skills:** CAD Modeling – SolidWorks/Onshape, Matlab, Python and Java, C+, Sheets / Excel, FEA
- **Soft Skills:** English, Korean (conversational), Spanish (conversational), Leadership, Teamwork, Communication
- **Interests:** Piano CM Level 10, Poker, Bouldering, Volleyball, Basketball, Surfing