

# Yunzhi Lin

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## EDUCATION

### University of California, Berkeley

GPA: 3.37/4.00

B.S. Bioengineering

Expected Graduation: May 2028

**Relevant Coursework:** Properties of Materials, Biomechanics, Biochemistry, Tissue Engineering, Polymeric Materials, Electronics for IoT, Mechanical Behavior of Materials, Structure and Interpretation of Computer Programs

## SKILLS

**Software:** SolidWorks, OnShape, 3DEXperience, CREO, Fusion 360, FEA, FEBio, COMSOL, Python, Java, SQL, JavaScript, C++, GitHub, Scheme, ImageJ, Microsoft Office

**Techniques:** Lean Manufacturing, Machine Maintenance and Improvement, Good Manufacturing Practice (GMP), Good Documentation Practice (GDP), GD&T, 3D Printing, Bioprinting

**Certification:** Competency in Robotics I/II - Career Skills Certificate (YouScience)

**Awards:** Bakar Ignite Scholar; 2nd Place (California) in Mobile Robotics Technology of the 2023 SkillsUSA Championship

## RELEVANT EXPERIENCE

### GE HealthCare

Waukesha, WI

[Incoming] Mechanical Engineering Intern

01/2026 – 08/2026

### Silver Lake Research Corporation

Irwindale, CA

Engineering Associate

09/2024 – 08/2025

- Authored and updated comprehensive SOPs for operation, maintenance, and calibration of 5 manufacturing machines, standardizing procedures to align with GMP and improve training, reliability, and audit readiness.
- Developed a scheduling system to centralize task assignments across Manufacturing, Production, and QC, improving real-time task visibility, reducing scheduling conflicts, and accelerating project handoffs.
- Led root-cause analyses on recurring defects and recommended equipment and process modifications, reducing waste, improving production yield, and cutting operating costs by 18% through target process improvements.
- Designed custom machine fixtures in OnShape, prototyped them with 3D printing, and applied GD&T to improve machine usability and production repeatability.

Engineering Intern

05/2024 – 08/2024

- Authored and executed 7 validation protocols for new manufacturing machines and software tools, completing 7 verification and validation reports to confirm system performance under varying constraints and enhanced QC efficiency.
- Developed a cost analysis and production capacity evaluation tool in Excel for 4 products, integrating Macros and VBA Scripts to allow testing of different constraints and processes, resulting in more cost-efficient production workflows.
- Designed a 3D production layout for assemblies using Creo, optimizing space utilization, material flow, and environmental control, leading to increased operational efficiency.
- Led maintenance and troubleshooting on key manufacturing machines, enhancing reliability and reducing downtime, while honing technical skills in equipment management.

### UC Berkeley Mechanical Engineering

Berkeley, CA

Undergraduate Research Assistant — advised by Professor Grace Gu

02/2025 – Present

- Fabricated collagen-alginate 3D-bioprinted composite scaffolds across multiple blend ratios to emulate ligament mechanics and evaluated material properties through tensile and compression testing.
- Optimized printing and post-processing parameters to improve strength, shape stability, and durability of scaffold prototypes.
- Tuning collagen and collagen-alginate mechanics through extrusion bioprinting process parameters, RSC Advances, 2025.

## PROJECTS

### IoT Electromechanical Marble Maze

2025

- Developed a networked mechatronic maze with PID-controlled 2-axis tilt, 4 randomized PWM servo gates, and sensor-driven game logic, integrating ESP32 MicroPython firmware and validating closed-loop behavior through iterative testing and tuning.
- Designed and fabricated the mechanical system using Fusion 360, 3D printing, and laser cutting, and implemented ESP-NOW wireless communication and HTTP-based game data logging to a Google Apps Script-hosted live leaderboard.

### Grip Assistive Device — EnableTech at Berkeley

Berkeley, CA

President, Team Lead, Student Mechanical Engineer

09/2023 – Present

- Utilized SolidWorks and 3D Printing to design a specialized gripping device that required minimal force to open while securely maintaining grip at rest, thereby reducing the ongoing effort required by the user.
- Directed operations and strategic partnerships for 50+ members, coordinated resources and schedules to ensure timely access to workshops, and maintained strong stakeholder relationships, improving project delivery and user satisfaction.