# Cindy Huang

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## EDUCATION & COURSEWORK

**University of California, Berkeley** **Expected May 2026**

**Management, Entrepreneurship, & Technology Program – B.S. Mechanical Engineering + B.S. Business Administration**

Coursework: Manufacturing Processes, 3D Modeling, MATLAB, Multivar Calculus, Intro to Business, Intro to Aero Eng design

## EXPERIENCE

**NextFlex,** San Jose, CA | ***Mechanical Engineering Intern*** **May. 2023 - Aug. 2023**

- Designed, manufactured, and successfully tested two airframes for Flexible Hybrid Electronics (FHE) RC aircraft.
- Converted 3D airfoil models into precise 2D representations, generated DXF files for laser-cutting substrates, and ensured accurate airfoil geometry post-folding using SOLIDWORKS sheet metal and Pepakura.
- Conducted thrust tests on printed flexible brushed ESC.
- Developed and fabricated gantry tool attachment capturing fixture that enables automated tool changing, minimizing potential human errors and hazards. Created parts and assembly drawings with GD&T.
- Designed fixture design for gantry print bed to hold down clamps capable of securing irregular shape objects up to 8 inches tall.
- Documented and released equipment operation instruction for HMI Screen printer, Flacktek Ink Mixer, and ink removal system.

**Berkeley Aviation Innovation Research Lab**, Berkeley, CA | ***Student Researcher*** **Oct. 2022 – Present**

- Focusing on design and construction of foldable VTOL aircraft capable of transitioning into fixed wing configuration.
- Created fuselage and wing joints designs using SOLIDWORKS.

**Berkeley Formula Electric**, Berkeley, CA | ***Powertrain Engineer*** **Feb. 2023 – Present**

- Designed differential mount to optimize for strength to weight ratio using SOLIDWORKS topology study.
- Fabricated jigs and jacking bars with mill, lathe, and laser cutter.

**Blue Origin, LLC**, Berkeley, CA | ***Strategy Consultant*** **Aug.2022 – Dec 2022**

- Analyzed Blue Origin's core competencies, identified potential revenue streams in the commercialized space industry.
- Researched and analyzed space manufacturing/fabrication methods under microgravity.
- Developed and presented growth strategies, including analysis in financial feasibility, potential partnership, and market growth to Blue Origin's Director of Corporate Strategy

**LeXT Robo Academy**, Irvine, CA | ***Robotics Coach/Instructor*** **Jul. 2021 – Apr. 2022**

- Developed lesson and training plans to teach and coach 6-12 y/o kids mechanical design & programming to win various national/state competitions.
- Taught students to design, build and program LEGO robots: included programming PID error feedback loop, color, ultrasonic, gyro sensors, and constructing CAD assembly with Studio 2.0.

**The Boeing Company**, Seal Beach, CA | ***Summer Extern*** **Jun. 2021 – Aug 2021**

- Worked with mentor on service requests in 737NG/MAX Wing & Empennage Fleet Support group.
- Reviewed and learned from past repair plans, acquired knowledge about fastening methods.
- Shadowed the stress analysis department, learned about fatigue and damage tolerance analysis in aerospace application.

## LEADERSHIP & COMMUNITY IMPACT

**FIRST Tech Challenge Team 13277**, Irvine, CA | ***Co-Captain, Software Team Lead*** **Mar. 2019 – Aug. 2022**

- Organized and mentored at >10 educational workshops and courses. Taught programming & robotics to > 150 younger students
- Built lasting organization structure and relations; fundraised $5,000 to reinvigorate program and gain team's first sponsors

**USEF Robo Tourney,** Irvine, CA | ***Founder, Co-Organizer*** **Aug. 2021 – Feb. 2022**

- Founded and co-organized robotics biannual competition to promote STEM among youth in SoCal, attracting over 200 participants.
- Oversaw all aspects of the competition's planning phase: created game manual/rule, proposed contracts, contacted and negotiated sponsorships, recruited volunteers, rented venues, trained 20+ staff volunteers.

## ADDITIONAL INFORMATION

- **Portfolio:** xcindyhuang.github.io/portfolio
- **CAD**: SOLIDWORKS, OnShape, Hyperganic Core(algorithmically generate engineering designs optimized for 3D printing)
- **Machining/Fabrication**: Lathe, mill, laser cutting(wood and metal), 3d printing(FDM, SLA), welding, soldering, woodworking(table saw, band saw, drill press, etc.), sheet metal bender, waterjet, horizontal bandsaw.
- Familiar with MATLAB, Java, Python, Swift. Libraries: TensorFlow, OpenCV, Vuforia.
- Languages: English (Native), Mandarin (Native)
- Tennis player, Twisty puzzle/Speedcubing enthusiast: Instructor for Rubik's cube deCal (1 unit course) at UC Berkeley