# Jennifer Li

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## Education

**University of California - Berkeley** *August 2025 – May 2026*
Masters of Science, Mechanical Engineering Berkeley, CA
**University of California - Berkeley** *August 2021 – May 2025*
Bachelor of Science, Mechanical Engineering; Aerospace Engineering Minor Berkeley, CA
- Berkeley Certificate in Design Innovation, Certificate in Entrepreneurship and Technology

## Skills

**Computer tools**: CAD (NX, Solidworks, Autodesk Inventor, Fusion 360, OnShape), FEA + Computational Fluid Dynamics (Ansys Mechanical/Fluent, Abaqus (ANSA/META), Solidworks), MatLab, Altuim, Gcode, Java, Python, Javascript, HTML, C, C++ SQL
**Manufacturing**: Manual + CNC mills, lathes, TIG/MIG/HHL Welding, 3D printers, Laser cutters, Waterjets, CNC routers, Composites, Casting, Shop machines+tools, Soldering, PCB design (beginner), PLCs (Allen-Bradley), FANUC/ABL robots (beginner)
**Applications**: Minitab, R, LaTex, Excel & Microsoft Office, Adobe Illustrator
**Languages**: Chinese (Proficient), Spanish (Basic)

## Work Experience

**Astranis**
Associate Technical Project Manager June 2025 - September 2025
- Led two-day customer technical review: owned agenda planning, scheduling, slide reviews, and presenter rehearsals; provided technical feedback, managed live presentation flow, captured action items, and supported Mandarin–English translation
- Close risks + issues with engineers, create and drive schedules, improve risk/change/issue management process, headcount analysis

**SpaceX**
Human Lander System (HLS) Mechanisms Intern April 2024 - August 2024
- Responsible for design, analysis, build, and test of Starship soft capture docking mechanisms damping struts:
- Perform analyses to determine required tests for acceptance and qualification tests, determine test limits
- Design test fixtures; perform thermal, static load, vibration, integrated docking mechs; summarized findings for redesign

Starship Mechanisms Intern January 2024 - April 2024
- Design and build structure to hold the Starship satellite loader on launch tower arms and withstand 0.5 MN loads on either/both end
- Design and build plume measurement device that withstands plume loads, reviewing flight footage and historical data to inform design
- Design tools, program robots, and create processes to test ship components and build flaps, propellant systems, fueling interface
- Failure/root cause analysis and path forward determination for build issues

**Tesla**
Drive Unit Stator Manufacturing Design Engineering Intern August 2023 - December 2023
- Develop line that reduced stator teardown cycle time by 88.9% and headcount by 93.3%: Set up Haas CNC Mill and write Gcode programs; Design, prototype, begin build of teardown and conveyance machines; cross-location collaboration
- Design, program, and install a mechanism that places barrel connectors for internal connection leads in proper positions improving FPY by 3.1% and increasing availability by 4.06%
- Program ladder logic and structured text on Allen-Bradley PLCs
- Design and build equipment and tools to automate processes; reduce scrapped and failed parts,lead-time, and cost; increase yield; increase production ergonomics and safety. Resolve equipment failures and make equipment upgrades quickly to reduce downtime.

**Chemix Battery**
Battery R&D Mechanical Engineering Intern May 2022 - August 2022
- Designed and built holders that increased space efficiency in incubators by 350% and securely held cylindrical cells during cycling
- Designed and built a temperature regulation system to actively cool cells during cycling to mimic real world environments, adjust temperatures, and optimize performance
- Designed and built a device that provides in-situ pouch cell gas generation measurements within a 0.12 mL margin of error
- Other Projects: created cylindrical cell filling holder and system, create heat tape controller for safety tests, conducted rubber hardness tests, CAD various electronics boxes and cell holders, cell validation and incubator set up, etc.

**National Institute of Standards and Technology** *July 2019 – August 2020*
Additive Manufacturing, Engineering Lab Intern Gaithersburg, MD
- Develop Python scripts and computer vision algorithms, conduct analyses, contribute to publications:
  In-process Data Fusion for Process Monitoring and Control of Metal Additive Manufacturing *[ASME IDETC/CIE, 2021]*
  Analyzing Remelting Conditions Based On In-Situ Melt Pool Data Fusion For Overhang Building In Powder Bed Fusion Process *[Annual International Solid Freeform Fabrication, 2021]*

## Clubs and Extracurriculars

**Design Build Fly @ Berkeley**
Team Director July 2023 - May 2024
- Set up new RC plane team: created organizational structures, timelines, procedures, and resources; contacted school and industry professionals for support, sponsorships, and design review attendance
- Trained team members on solid part design, analysis, simulations, and manufacturing across all subsystems, Advised subsystems on optimal assembly design and component FEA, while focusing on cross-subsystem integration.

**Berkeley Formula Racing**
Brakes and Driver Interface (BDI) Co-Lead, Aerodynamics Engineer May 2023 – July 2023
- Analyzing simulation data with Ansys Fluent CFD and improving undertray and sidewing geometries to meet center of pressure location specifications, increasing downforce while decreasing drag
- Continue previous year's BDI responsibilities with new projects such as pedal simulation validation and testing, rotor material testing, single plate CF steering wheel, brake bias proportioning

Brakes and Driver Interface (BDI) Lead May 2022 - May 2023
- Lead team of seven on creating an effective brake system and ergonomic, safe, and effective steering wheel, headrest, pedals, seat Projects include redesigning and manufacturing the brake system, pedals and pedal tray, and rotors; incorporating a brake bias adjuster; designing steering wheel with incorporated dashboard; validating and testing components for safety and performance
- Machined and manufactured over 200 parts for the team

Brakes and Driver Interface (BDI) Engineer September 2021 - May 2022
- Designed and manufactured a 6 ply carbon fiber seat with Rohacell core to optimize ergonomics and safety:
  Built ergo jig, created CAD models of drivers and jig, designed seat, built prototypes for ergo, designed easy to assemble and disassemble seat mold for reuse