

Jason Hu

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EDUCATION

University of California, Berkeley Bachelor of Science in Engineering Physics	Berkeley, CA May 2029
Amador Valley High School GPA: 3.95UW 4.43W SAT: 1550 Honors: U.S. Engineering Olympiad Gold (Top 15 nationwide), USAPhO Qualifier & Honorable Mention, USACO Gold, 3x AIME Qualifier and AIME Distinction	Pleasanton, CA May 2026

EXPERIENCE

Formula Electric at Berkeley <i>Brakes and Ergonomics Engineer</i>	Berkeley, CA <i>September 2026 – Present</i>
- Own the design and chassis integration of the Formula SAE driver head restraint, engineering the backplate, mounting architecture, welded mounts, and structural load paths to meet competition loads while improving packaging, safety, and driver fit - Optimize chassis and Brakes & Ergonomics hardware through parametric CAD, structural analysis, and DFM, improving structural efficiency while balancing mass, stiffness, strength, weldability, serviceability, and vehicle integration	
Engineering Solutions at Berkeley <i>Technical Consultant</i>	Berkeley, CA <i>September 2026 – Present</i>
- Engineer and prototype ergonomic mechanical systems for consumer products, using iterative CAD and mechanism design to improve structural stability, positioning repeatability, usability, and manufacturability - Translate open-ended client needs into quantitative engineering requirements and validation criteria, evaluating competing concepts through analysis and testing to identify failure modes and deliver a reliable, real-world-ready proof of concept	
Custom Mechanical Keyboard Business <i>Founder & Product Designer</i>	Remote <i>March 2021 – Present</i>
- Founded and operated a custom keyboard business serving 100+ customers and generating \$10K+ in revenue, providing product consultation, custom CAD design, component sourcing, assembly, manufacturing, and quality control - Designed and manufactured diverse custom components through CAD, prototyping, and testing, translating customer requirements into finished products while coordinating external fabrication and production - Published open-source hardware designs and build documentation reaching 5,000+ people, enabling community reuse, modification, and further iteration	
Voyager 6+ Robotics <i>Captain, Hardware Lead</i>	Tri-Valley, CA <i>July 2021 – May 2026</i>
- Led a 15-member FTC team through design and competition, coordinating hardware, software, purchasing, and training while driving development of a compact, competition-ready robot - Led mechanical design in Onshape using tolerance, structural, and mass-property analysis; iterated odometry and slide mechanisms through testing to reduce slip, binding, and backlash, while open-sourcing designs that reached 200+ downloads	
Amador UAVs <i>Mechanical Co-lead</i>	Pleasanton, CA <i>September 2022 - May 2026</i>
- Co-led mechanical integration of an ~11 kg carbon-fiber coaxial octocopter, driving subsystem integration and resolving CG, vibration, and mass-distribution challenges through iterative redesign and flight testing to improve stability and reliability - Owned mechanical design and integration of the payload, gimbal, and servo-actuated release system, optimizing the architecture for repeatable autonomous deployment, improved imaging stability, and reliable operation under flight loads	
Purdue XYZT Labs <i>Research Assistant</i>	Remote / West Lafayette, IN <i>June 2024 – December 2024</i>
- Developed a calibrated laser-triangulation 3D sensing pipeline for additive-manufacturing inspection and real-time object tracking, converting 2D camera measurements into repeatable metric surface profiles - Benchmarked Python/OpenCV distortion correction and subpixel laser-stripe extraction across 20+ trials, refining sensor geometry, alignment, and calibration to reduce reconstruction error and improve tracking stability and measurement consistency	

SKILLS

CAD & Fabrication: Solidworks, Onshape, 3D printing, laser cutting, soldering, rapid prototyping, mechanical assembly
Programming & Computer Vision: Python, C++, Java, OpenCV, NumPy, TensorFlow, MediaPipe, QMK/VIA
Engineering Methods: Optical triangulation, experimental design, test & validation, tolerance analysis, technical documentation