

Henry Lee

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Education

University of California, Berkeley

Expected 2029

B.S Mechanical Engineering

West Valley College

June 2024 - June 2025

Dual Enrollment, Honors College

GPA: 4.00

Related coursework: Linear Algebra, Differential Equations, Multivariable Calculus

Los Gatos High School

Aug 2021 - June 2025

Seal of Civic Engagement, Honors Student, National Merit Scholar, AP Scholar with Distinction

GPA: 4.70

Skills

Software: Solidworks, Fusion 360, OnShape, MasterCAM, KiCAD

Manufacturing: CNC Mill, Lathe & Router, 3D printing, Waterjet, GD&T, DFM, Soldering, CAM programming

Experience

Iron Claw Robotics

Los Gatos, CA

Mechanical Director, Manufacturing Lead

Dec 2023 - June 2025

- Developed mechanical design for 5 subsystems for a 50-member FIRST Robotics team ranked 70 out of 3500+ teams, coordinating design, electrical, and manufacturing to deliver reliable, high-performance robot subsystems
- Implemented laser cutting and 3D printing for rapid prototype intake and end effector subsystems, and applied CNC fabrication under strict DFM guidelines to machine and assemble subsystem components, reducing build time by 25%
- Decreased machining lead times by 70% by introducing Lean manufacturing principles, palletization, One Piece Flow, and GD&T collaboration with the design team, streamlining overall production flow and boosting team efficiency

Los Gatos Recreation

Los Gatos, CA

Program Lead

May 2021 - June 2025

- Led a team of 15 volunteers in the "Tech with Teens" program, assisting over 100 elderly community members with technology while managing schedules, training, and outreach efforts that drove a 25% increase in participation
- Implemented a streamlined matching and logistics process between elderly participants and 9th-grade volunteers, integrating the program into the high school curriculum and improving technology support efficiency by 20% overall

Projects

spiral65

henryklee.com/portfolio/spiral65

- Built and designed the Spiral65, a custom 65% WKL keyboard, designed and manufactured with Fusion 360 and KiCad
- Designed and validated a four-layer PCB with impedance-controlled traces, ground planes, ESD protection, surge filtering, and rp2040 microcontroller integration, then implemented QMK firmware and VIA support for remapping
- Machined and fabricated the enclosure and components, producing a two-piece 6061 aluminum/brass case on a Tormach CNC mill with Fusion 360 CAM, and cutting FR4 and aluminum switch plates via water jet

ISCG05 Bash Guard

henryklee.com/portfolio/bash-guard

- Engineered a custom ISCG05 bash guard for Evil bikes with a proprietary two-tab mount, protecting high-end SRAM chainrings; performed FEA to optimize impact load transfer into the frame rather than mounting screws
- Fabricated precision components by milling the 7075-T6 aluminum plate and machining custom ½"-20 hex-bored bolts on a CNC lathe, then prototyped guards on a Markforged printer with Onyx nylon and Kevlar reinforcement

Cascading Wallet

henryklee.com/portfolio/wallet

- Designed a minimalist cascade wallet in Fusion 360 with a 3D-printed lever enabling staged access to three cards
- Machined the wallet body and cover from 6061-T6 aluminum on a Tormach CNC mill, using Adaptive and modern CAM strategies, palletization, and super-glue workholding to improve parallelism by 10% and reduce cycle time