

HENRY W. CHEN

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EDUCATION

University of Pennsylvania – *School of Engineering and Applied Science*

Philadelphia, PA

B.S.E Mechanical Engineering and Applied Mechanics (Planned Conc. Dynamics, Controls, and Robotics)

Expected May 2029

GPA: X.XX/4.0 | **Activities:** Varsity Men's Golf Team, QuakerBots

Relevant Coursework (GPA X.XX/4.0): MEAM 1100, MEAM 1470, MATH 1410, CHEM 1012, EAS 0380, ECON 0100

Crystal Springs Uplands School

San Mateo, CA

GPA: 3.99

Graduated May 2025

- **Activities:** Robotics, Varsity Golf Co-Captain, Math Club, Math Ambassador, Chess Club, Debate, Jazz Band, Chamber Ensemble

University of Pennsylvania – *Jerome Fisher Program in Management and Technology*

Philadelphia, PA

Earned Course Credit from the School of Engineering and Applied Science - EAS 0028

June — July 2024

WORK EXPERIENCE

Elytra Robotics | Autonomous Robotic Infrastructure

San Francisco, CA

Summer 2025 Mechanical Engineering Intern

May — Sept 2025

- Designed custom swerve drivetrain for an industrial rover capable of indoor and outdoor operation
- Modelled custom onboard trash compression mechanism optimized for tight packaging.

Gryphon Robotics | Robotics Organization

San Mateo, CA

2025 Senior Mechanical Engineer

Sept 2022 — June 2025

- Oversaw all mechanical components of research, design, manufacturing, and testing processes
- Head of teleoperation of robot during competition, alliance coordination, and match strategy

PROJECTS

Fully Modular Rubik's Cube Solving Robot

San Mateo, CA

Project Lead - Independent

Jan — May 2025

- Designed and constructed Rubik's Cube solving robot, integrating mechanical and electrical systems with software
 - Implemented Kociemba's 2-phase solving algorithm, achieving an average solution of 19 moves per solve
 - Average solve times of just over 1 second
- Coordinated project timeline and milestones using Gantt chart organization.

Pricing Financial Derivatives

San Mateo, CA

Project Lead

May — June 2025

- Interviewed quantitative researcher to gain insight into the industry of quant and relevant mathematically-based trading strategies and principles, such as market alpha and beta, orthogonal returns, and PCA
- Analyzed both closed-form and free boundary version of Black Scholes Equation

FitBox

Philadelphia, PA

Project Mechanical Lead

June — July 2025

- Portable workout solution that allows users to experience variable, simulated weight through electromagnetic resistance
- Oversaw mechanical ideation, design, and fabrication of venture's MVP and assisted in developing GTM strategy

AWARDS

All-American Scholar

Braselton, GA

Issued by Rolex

Nov 2024

- Recognized as 1 of 50 junior golfers internationally in recognition of exceptional academic achievement and tournament performance