

CLAIRE C. XU

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HIGHLIGHTS

- Passionate STEM and robotics enthusiast with a strong maker mindset
- Two-time Team Captain, FIRST Robotics Competition; two-time top award winner in Bay Area Tech Challenge
- 2025 Diamond Challenge Finalist (Social Innovation), 2nd place in DSWA Waste & Recycling Innovation Prize.
- Inventor of a patent-pending UV door-handle sanitizing device; 2nd place in AAASE Science & Engineering Entrepreneurship Competition at Stanford.
- Proficient in Java and CAD tools (SolidWorks, Fusion 360), machining (mills, lathes, CNC), and 3D printing.
- Experience across product design (Wharton), AI agent design (Industry Immersion & Kyros), and UI/UX (Figma).
- Community volunteer at American Cancer Society Discovery Store and Second Harvest Food Bank.
- First violinist, school orchestra (6 years); Skilled artist across sketching, digital media, and sculpture

EDUCATION

Woodside Priory School, Portola Valley, CA — Class of 2026

GPA: Weighted 4.19/4.29; Unweighted 3.90/4.00 | **ACT:** Composite 35 (Math 36, Science 35, English 35, Reading 34)

Rigorous coursework: AP Calculus AB, AP Chinese Literature, AP Computer Science A, AP Calculus BC, AP Environmental Science, AP Microeconomics, AP Macroeconomics; Honors in Algorithms, Chemistry, Physics, Biology, English; In progress (12th): AI/ML, Linear Algebra, AP Physics C, AP Statistics.

HONORS & AWARDS

- **Diamond Challenge for High School Entrepreneurs (2025) — Finalist** (Top 30/940 teams); DSWA Waste & Recycling Innovation Prize, **2nd place**; Project: MetalFlow microfluidic metal recycling.
- **The Congressional Award — Bronze Certificate** (2023); **Silver Medal** (expected Nov 2025).
- **FIRST Robotics Competition (FRC) (2022-2025) — Regional Semi-finalist** (2023).
- **College Board — AP Scholar Award** (2023); **AP Scholar with Distinction Award** (2024)
- **Woodside Priory Academic Award — Outstanding Achievement in Computer Science** (2025).
- **Model United Nations — Service Award** (Stanford 2024); **Outstanding Delegate** (Priory 2023).
- **National Art Competition (Chinese Academy of Art, 2022) — First-Class Prize** for color sketch “Sailing.”

LEADERSHIP & EXPERIENCE

Barn2Robotics FRC Robotics Team, Woodside Priory | 2023–2025 — Captain; Head of Drivetrain & Machining

- First two-time captain in a decade; led a 25-member team: season planning, training, and competition strategy
- Increased female participation from 6% to 40%.
- Machined high-tolerance drivetrain and swerve components; implemented CAD workflows and part libraries to boost build efficiency.
- Coached peers on mills, lathes, and CNC; established safety SOPs and onboarding curriculum for new members.

SteriLink, Group Competition at AAASE Summer Academy at Stanford | August 2025 — Founder, Team Lead, CEO

- Invented patent (pending) “Sanitizer Device and Methods of Sanitizing Surfaces Using Ultraviolet Irradiation”, Application #: 63/865,575

- Conceptualized the idea, conducted 90 interviews for market research, created functional prototypes, microbial efficacy tests, and marketing material, and delivered the demo pitch. Won 2nd place among 10 teams.

Machining Summer Camp, Woodside Priory | July 2025 — Founder & Lead Instructor

- Designed a two-week curriculum including 13 lectures and six hands-on projects; recruited three instructors, balanced the budget,
- Created training, safety, and marketing materials; taught daily lectures and hands-on labs to camp participants.

MetalFlow, Social Venture for Diamond Challenge | August 2024 – May 2025 — Co-Founder & CTO

- Developed concept for extracting valuable metals from e-waste via microfluidics; validated with customer interviews; presented the pitch deck.

Materials Science & Engineering Summer Institute, Drexel University | July 2025

- Conducted research in advanced materials and their applications under faculty mentorship.

Wharton Global Youth Product Design Academy, University of Pennsylvania | July 2024 — Co-team lead & Designer

- Designed a product ranked among the top 6/45+ teams; applied human-centered design to prototyping.
- Produced CAD designs and built physical prototypes; delivered user-tested product demo.

AI Agents Industry Immersion Program, [Kyros.ai](#) | June–July 2024

- Built a generative-AI agent to design balanced board games; earned “Most Creative” award.

Volunteer Teacher, CSMA Art Camp | August 2024

- Taught drawing and 3D art to elementary students; created class materials and supervised projects.

Astrophysics Summer Program, University of Chicago | June–July 2023

- Studied college-level classical and quantum physics courses; conducted hands-on projects and data analysis.

UI/UX Design Intern, [Kyros.ai](#) | June–August 2022

- Led a 4-person team to gamify an AI-assisted college app platform; designed task-reward and ranking dashboards.
- Built high-fidelity Figma mockups; presented to engineering leadership.

COMMUNITY SERVICE

- **American Cancer Society Discovery Store (Los Altos, 2023–2025):** 45 hours — processed donations to fund cancer patient support.
- **Second Harvest Food Bank (San Jose, 2022–2025):** 30 hours — sorted and repacked food, assisted distributions.
- **Environmental Stewardship (2022):** 6 hours — Cleaning and landscaping at Redwood Grove Nature Preserve.

ACTIVITIES

- **Blog:** www.xclaire.com; **Makeworld:** <https://makerworld.com/en/@cxstudio>
- Robotics Club, FIRST Robotics Competition (Grade 9-12)
- Model United Nations (Grade 9-11)
- Visual Arts (Grade 1-12): 9+ years training; media include graphite, charcoal, oil/acrylic, watercolor, digital, CAD, and glass; school exhibit selections.
- Violin (Grade 1-12): First violinist, school orchestra (Grades 6-12); 50+ performances in school/community.
- Sports: Volleyball (JV, Gr 9-10); Lacrosse (Most Improved Athlete Award, 2021–22); Competitive Swimming (Menlo Swim, PASA Foothill, Ladera Oaks, Grade 1-8).