Christopher Lam (he/him)

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TECHNICAL SKILLS

CAD & Fabrication: Autodesk Inventor, Fusion 360, CAM and G-code, CNC milling, 3D printing, soldering
Electronics & Embedded: Analog circuits, LED drivers, RP2040, Arduino, Multisim, oscilloscopes
Programming & Robotics: Python, Arduino C, JavaScript, HTML/CSS, Git, LeRobot, SmolVLA, MediaPipe

EDUCATION

University of British Columbia, Vancouver, BC Expected Graduation: May 2029
Bachelor of Applied Science – Integrated Engineering

- Relevant Courses: Introduction to Engineering Design, Linear Circuits, Electronics Laboratory
- CGPA: 82% (A–, UBC percentage scale)

DESIGN TEAM EXPERIENCE

UBC Solar | Vancouver, BC Sept 2026 – Present
Strategy & Simulation Member of Technical Staff

- Build a Python physics simulation to find optimal solar car lap speed within an energy budget
- Design driver, pit, and strategy dashboards surfacing energy-model decisions at a glance
- Lead strategy communications at competition; propose interface agreements between subteams

PROJECT & LABORATORY EXPERIENCE

Voice-Controlled Robot Arm — 2nd of 180 | Physical AI Sprint Hackathon (Nebius & NVIDIA) Aug 2026

- Turned Meta Ray-Ban glasses into a live feed re-prompting a vision-language-action model
- Programmed robot-side control with a same-day team to ship a working demo in five hours

SO-101 Robot Arm — Autonomy and Control | Personal Project Jul 2026 – Aug 2026

- Deployed SmolVLA on an SO-101 arm, building a camera-to-actuation pipeline end to end
- Wrote a Python safety layer bounding poses to prevent self-collision and table strikes

Tally — One-Button Counter | Personal Project Jun 2026 – Aug 2026

- Developed RP2040 firmware running count, lock, and reset from one button on an e-ink display
- Iterated four Fusion 360 housings in one day, splitting a one-piece shell so assembly drove design

Experimental Physics Laboratory | University of British Columbia Jan 2026 – Apr 2026

- Calibrated microphone transducers and propagated uncertainty to analyze standing waves

Custom LED Desk Lamp | Personal Project 2025

- Hand-soldered an analog constant-current driver for a 3000 K LED, eliminating visible flicker
- Balanced spring geometry so a lamp arm holds any position across its sweep without locks

WORK, LEADERSHIP & VOLUNTEER EXPERIENCE

In-N-Out Burger — Store Associate | Pleasanton, CA 2022 – 2025

- Reached Level 4 in two years; trained 10+ associates on standard work through 350-order peaks

Scouts BSA Troop 941 — Senior Patrol Leader & Eagle Scout | Pleasanton, CA 2018 – 2025

- Led a 100-member troop after peer election; delivered an Eagle project with 15+ volunteers

COVID-19 Face Shield Production — Community Service | Pleasanton, CA Mar 2020 – Aug 2020

- Produced 3,500+ 3D-printed face shields for first responders; recognized by NorCal Ambulance

INTERESTS & ACTIVITIES

- Hiking (Mt. Whitney, Mt. Fuji, Mt. Shasta), street photography, short film, Japanese (conversational)