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Suan Cho

College Application Resume

Sunset High School Portland, OR
High school diploma expected June 2027

- GPA: 3.957 unweighted / 4.174 weighted. Intended major: Electrical Engineering.
- Advanced coursework: IB Math HL II, IB Physics HL II, and IB Calculus HL I through Portland State University dual credit (A+).

Honors & Awards

2026 **SkillsUSA Oregon** Gold Medal, Electronics Technology; National Qualifier.

2026 **National Merit Commended Student**; perfect score on the math section.

2026 **NCWIT Aspirations in Computing** Regional Finalist, Oregon and Southwest Washington.

2026 **ALA Oregon Girls State** County Commissioner and Elected Party Secretary.

2025 **HOBY Oregon** representative; one of two selected from the school.

2025 **Asian-American Excellence Scholarship** ($500); one of four Korean-American Youth Alliance recipients.

2024 **School commendations**: principal's letter for civics advocacy and positive conduct; physical education teacher's letter recognizing character (September 2024).

Research & Engineering

George Mason University Summers 2025 and 2026
ASSIP Research Intern, with Dr. Ahn 40 hrs/week

- Investigated tape-exfoliation methods for tungsten diselenide (WSe_2), adjusted experimental parameters, and explored transferring flakes onto polyimide for energy-harvesting research.
- Returned for a second summer in 2026; earned three college credits each summer (six total) through the Aspiring Scientists Summer Internship Program.
- Published research abstracts through ASSIP and developed the 2025 work into a first-author manuscript.

MIT CRE[AT]E Challenge Sep 2025 – Apr 2026
Team Leader and Developer 5 hrs/week

- Led development of an assistive device that supplements a co-designer's hearing aid without modifying it.
- Programmed flashing LED alerts for use in noisy environments.
- Completed all program gates and received a completion certificate.

Spectra Sherpa LLC
Software Tester Mar – Aug 2026

- Tested a chemometric spectroscopy platform built with Claude Code, identifying flaws in AI-generated output and reporting them directly to founder Feng Ye.
- Reviewed and improved code in VS Code and GitHub to support ongoing development.

Engineering Capstone Project Sunset High School
Student Designer and Builder Jan – Jun 2026

- Designed and built a portable classroom sound meter for a computer science teacher, integrating a MEMS microphone, LED display, user controls, sound filtering, and a 3D-printed enclosure.
- Calibrated the device so the teacher can monitor classroom noise levels.

Publications

Cho, S. WSe_2 exfoliation methods. *Journal of Emerging Investigators*. First author; submitted April 2026, accepted for publication. Based on the 2025 George Mason ASSIP internship.

Leadership

Sunset Engineering Society Dec 2024 – Present
Founder and President 2 hrs/week, school year

- Founded the club and grew membership from 20 to 54 students.
- Developed three computer science curricula and offered peer engineering support classes.
- Trained student instructors and organized engineering activities for middle-school students with Good DeEds.
- Designed an August 2025 circular-economy challenge in which students built prototypes from recyclable materials to address plastic waste.

Sunset SkillsUSA 2025 – Present
Founder and Vice President 1 hr/week, school year

- Founded the school's first competition-focused engineering chapter; organized technical training and resume workshops.
- Helped prepare members for competition; nine teams qualified for nationals.
- Competed in Electronics Technology (Oregon gold medal, 2026 national qualifier) and on a three-person Technological Engineering Design team.

Sunset Student Government 2024 – Present
Philanthropy and Diversity Committee; elected ASB, 2026–27 5 hrs/week

- Launched a book drive and a Lunar New Year event; supported Diwali and club-fair programming and monthly displays.
- Served as student-teacher liaison for a 1,200-person multicultural assembly and supported Red Cross blood-donor recruitment.
- Completed Leadership 2 and was elected to the 2026–27 Associated Student Body Philanthropy and Diversity committee.

Sunset Scroll 2023 – Present
Journalist, Editor, Group Leader and Treasurer 1 hr/week, school year

- Published eight articles on local and global topics and created the paper's daily Wordle feature.
- Helped publish the school's first print newspaper in ten years (February 2025).
- As treasurer, managed transactions and fundraising communication among the club, PTO, principal, and printing company; helped double club sign-ups.

Sunset Link Crew Jun – Aug 2025
Selected Student Leader

- Chosen through teacher recommendation to mentor incoming freshmen; planned the August orientation and led activities during the event.

WAFL Korean Leadership and Public Speaking Committee Nov 2024 – May 2025
Participant

- Developed leadership and public-speaking skills; received the Asian-American Excellence Scholarship.

Programs & Summer Study

MIT Beaver Works Summer Institute Virtual
Fall Outreach: Girls Who Want to Learn the Basics of ASICs Oct – Dec 2024

- Built logic circuits from NAND gates in Nand2Tetris and studied semiconductor, CMOS, and RAM fundamentals in a weekly Saturday course.

ALA Oregon Girls State
County Commissioner and Elected Party Secretary Jun 2026
- Took part in the civic leadership program and held both roles.

Kode With Klossy Virtual
Data Science Student Coder Jun 17 – 28, 2024
- Used Python, Google Colab, and Looker Studio to analyze global education disparities; presented team findings and built an awareness website.
- Kept the team on track by monitoring progress, contributing ideas, and encouraging collaboration.

U.S. Naval Academy Summer STEM
Participant Jun 10 – 15, 2024
- Explored electrical circuits, engineering design, robotics, JavaScript, chemistry, aerospace, biology, mathematics, and machine learning through hands-on activities.

Portland State University Business Camp Portland, OR
Participant Jul 8 – 12, 2024
- Completed the summer business program and earned one college credit.

Enterprise Academy
Team Chief Operating Officer May 17 – 19, 2024
- Contributed to operations research, team planning, and the final pitch in a three-day business camp.

Civic Education and Engineering Career Exploration 2024 – 2025
Participant
- February 2024: visited the Oregon State Legislature and met district representative Lisa Reynolds.
- February 2025: joined PSU's E-Week to explore engineering programs and meet engineers.
- Also participated in the BHSE science fair.

Independent Learning

Dartmouth via edX (2024): Introductory C programming certificate, 100% course score; variables, loops, characters, formatted output, and user input.

Programming (2023–24): Python with Replit through MMT; Code.org app-development lessons.

Math and science (2023–24): MMT AGS3 and precalculus; online physics; MasterPrep chemistry; independent chemistry study with Crash Course and Bozeman Science.

Additional courses (2024): Gilder Lehrman government and politics summer class; accelerated summer health course (A, 0.5 high-school credit).

Other study: English tutoring and art-design lessons (2023); email-etiquette study (2023–24); BYU Japanese 2 (2024–25).

Service

Volunteer Income Tax Assistance Tax seasons 2024 – 2026
Greeter, then Advanced-Certified Tax Preparer About 2 hrs/week
- Started as a greeter in 2024 and prepared tax returns in 2026 after earning Advanced certification.
- Interpreted for Korean-speaking families, wrote instructions for newcomers, and trained new volunteers.
- Improved check-in by organizing the waiting list and grouping visitors by the help they needed.

OHSU Science Ambassadors 2024 – Present
Mentor, Primate Research Center 2 hrs/week, school year

- Turned advanced biology concepts into hands-on experiments for 20 fifth graders and mentored students one-on-one.
- Mentored a Korean-speaking student in 2025 and designed a unifying logo for the program.

Every Body Athletics Jan 2024 – Present
Volunteer Teammate About 2 hrs/week

- Exercise alongside adults with intellectual disabilities in adaptive sessions, in person and virtually, using movement and music and building ongoing friendships.

Athletics

Sunset Cross Country 2024 – Present
Junior Varsity Runner

- Joined student-run summer conditioning in 2024 and advanced from novice to JV Gold in one season.
- Raced at Mook Invite, Nike XC, Rose City and Metro League championships, and the 2025 Wilsonville Opening Night 3,000 m.
- Mentored newcomers and supported charity runs for Shriners Hospital for Children; received scholar-athlete recognition and a 2024 participation award.

Sunset Track and Field Feb – May 2024
Track Team Member

- Competed in 100-meter sprint events.

Tennis 2023 – 2024

- Five summer sessions in 2023, then continued lessons and school-team tryouts in 2024.

Skills

Programming and tools: Python, C, GitHub, VS Code, Claude Code, Google Colab, Looker Studio, Replit, Nand2Tetris, Code.org.

Technical: Digital logic, electronics prototyping, MEMS microphones, LED displays, sound filtering, 3D-printed enclosures, materials exfoliation and transfer.

Languages: Korean (native), English (advanced), Japanese (conversational).