

Christopher Chou
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EDUCATION

2017-2021 (expected)	Washington High School	Fremont, CA
	<ul style="list-style-type: none">• GPA: 4.0 UW• SAT: 1560 (E/W: 770, Math 790), Super Score 1570 (E/W 770, Math 800)• ACT: Composite 35, English 36, Math 35, Reading 35, Science 35, Essay-Writing 12• PSAT: 1510 (E/W: 750, Math 760, NMSC Selection Index 226)• SAT Subjects: Math 2 (800), Physics (800), Chemistry (800), Chinese (800), Biology (790), Spanish (760)• AP: Calculus BC (5), Statistics(5), Physics C Mechanics(5), Physics 1 (5), Computer Science A (5), Computer Science Principles (5), English Language and Composition(5), US History (5), Chemistry (5), European History (5), Spanish Language and Culture(5), Chinese Language and Culture(5)• Advanced/College Coursework:<ul style="list-style-type: none">• Arizona State University (Dual Enrollment, 2019-Present): Brief Calculus, Linear Algebra, Discrete Math, Mathematical Structures, Macroeconomics, Microeconomics, Multivariable Calculus• Foothill College (Dual Enrollment, 2019-Present): Javascript, Object-Oriented Programming in C++, Intermediate Software Design C++• University of California, Santa Barbara (Dual Enrollment, Summer 2020): Presentation Techniques, Introduction to Research• Coursera: Deep Learning Specialization, Mathematics for Machine Learning• edX: IBM Data Science• Knowledge Matters: Virtual Business - Retailing, Hotel	

AWARDS AND HONORS

January 2019	USA Computing Olympiad (USACO) Gold Division <ul style="list-style-type: none">• national competition on computer programming and problem solving with application of advanced data structures and algorithms	
Mar 2019 - Present	Hackathons <ul style="list-style-type: none">• Epsilon Hack, 2nd Place• SRC Hack II, 2nd Place• Sigma Hack, 2nd Place• MV Hacks II, Organizer's Choice Award	Online San Francisco, CA Fremont, CA Mountain View, CA
Summer 2020	Research <ul style="list-style-type: none">• Research Mentorship Program (RMP) at UC Santa Barbara (Completed)• accepted for 9th Global Conference on Materials Science and Engineering and also to be published in the Journal of Physics: Conference Series• selected for Secondary Student Training Program (SSTP) at University of Iowa (SSTP 2020 Cancelled)	
2017 - Present	Taekwondo <ul style="list-style-type: none">• 2 AAU National Championship Bronze• California State Champion and Team• Pan American President's Cup Gold• USAT Level 1 Taekwondo Coach• 15+ State Championship Medals in 2017-2019• 3rd Degree International Black Belt	Fort Lauderdale, Florida Fresno, California Las Vegas, Nevada Kukkiwon, Korea

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| July 2020 | National AP Scholar Award <ul style="list-style-type: none"> scored 5s on all 12 exams |
| October 2019 | National Merit Scholarship Semifinalist <ul style="list-style-type: none"> PSAT 1510, NMSC Selection Index 226 |
| October 2020 | Washington Hospital Volunteer Exemplar <ul style="list-style-type: none"> over 100 hours of service in the Washington Hospital Healthcare System |
| Summer 2018 | President's Volunteer Service Award Gold <ul style="list-style-type: none"> served 117 hours of service for the community of Fremont while counseling youth |

ACTIVITIES

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| October 2020 | Hackathon Organizer <ul style="list-style-type: none"> organized a hackathon called PsiHacks in order to tackle the problem of the distance learning model inspired students to innovate new applications or platforms that incentivize learning under a virtual environment. raised over \$20,000 in sponsorships to be held on October 10-11, 2020 expecting 150+ Attendees |
| 2019 - Present | Founder and President of WHS Data Science Club <ul style="list-style-type: none"> focused on tackling the digital divide in the community and teaching underprivileged students coding founded club with an officer team of four and over 40 members taught Python, machine learning, and website development coached and coordinated many teams to compete in Hackathons |
| 2019 - Present | WHS National Honors Society |
| 2020 - Present | President <ul style="list-style-type: none"> managed club operations, lead events: college seminars, scholarship workshops created project to minimize the impact of COVID-19 fundraised over \$300 for the Alameda County Community Food Bank |
| 2019 - 2020 | Secretary <ul style="list-style-type: none"> managed club administration tasks collected information in meetings and published important features |
| 2019 - Present | WHS Physics Club Vice President <ul style="list-style-type: none"> created club with an officer team of four and over 20 members helped apply club for f = ma Physics Olympiad club hosted discussion sections and possible research studies on topics like quantum mechanics and astrophysics |

RESEARCH

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| Summer 2020 | Research Intern at Research Mentorship Program, UC Santa Barbara <ul style="list-style-type: none"> highly selective program with 5% admission rate studied the electronic transport properties of the Dirac Semimetal Cd_3As_2 created a quantum simulation model that manipulated the inversion asymmetry and hybridization of the material using Kwant package in Python proposed novel spintronics devices and topological field effect transistors using Cd_3As_2 poster presentation at 9th Global Conference on Materials Science and Engineering |
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Sep 2020 - Present

Aspiring Scholars Directed Research Program

- ongoing project utilizing sentiment analysis of tweets to forecast stock market pricing
- deep learning model trained on past stock market prices and tweets in the same interval of time, using natural language processing and PyTorch
- uses Twitter API for web scraping and Yahoo Finance stock prices for training data

COMPUTER SCIENCE EXPERIENCE

June 2020

Secure Online Platform for Restaurant-Consumer Activism

- 2nd place at Epsilon Hacks, a competitive virtual hackathon
- developed an online platform for consumers and restaurants to promote activist movements nearby.
- contains descriptive data visualization, post/comment features, and secure checkouts using AWS cloud database, recommendation systems, and text recognition.

January 2020

Personal Menu Allergen Detector

- 2nd place at SRC Hacks II, a hackathon at San Francisco, CA
- developed a menu analyzer where users can take pictures of the menu and the application searches the dishes online no matter the language, outputting possible allergens that may specifically affect the user
- uses Flask, text recognition, and database management

November 2019

Food Label Analyzer Using Optical Character Recognition

- 2nd place at Sigma Hacks, a hackathon at Fremont, CA
- created an app where users could see harmful ingredients by taking photo of a food label
- uses Django with Google Cloud Vision and web scraping.

March 2019

Multi-disciplinary Smart Calculator

- Organizer's Choice award at MV Hacks II, a hackathon at Mountain View, CA
- developed an efficient calculator with functionalities in Calculus, Physics, and Chemistry with robust regular expression checking and 3D modelling
- uses Matplotlib, Chempy, and Sympy.

COMMUNITY SERVICE

2019 - Present

Washington Hospital Healthcare System

- assisted annual flu-shot drive for employee and volunteers
- volunteered by managing storage and business transactions with customers.
- practiced marketing and helped furnish the gift shop.

Summer 2018

Fremont Recreational Center

- counseled little kids about the importance of active lifestyle
- volunteered by managing sports and recreation with little kids.

2020 - Present

Youth for First Responders

- a tutoring organization based in Arcadia, CA where donations are given to first responders
- taught python to three high school students every weekend online
- raised over \$1565 as an organization during the summer

2017 - 2018

Centro de Servicios

- an English/Spanish bilingual organization focused on assisting low-income families in Union City, Fremont, and Newark

- restocked food and technology devices and managed the clothing supply
- worked with customers, frequently using Spanish.

PAID JOB

2019 - Present

Private Tutor

- taught Spanish, chemistry, math, Python, and physics to elementary and middle school students with over 100 hours of experience
- teach 5 high school students weekly

SPORTS

2010 - Present

Taekwondo Competition Team

- compete in Olympic sparring, forms, and board breaking at state, national, and international competitions
- coach other children in sparring and volunteer at competitive events
- volunteer in demonstration events
- routine training for fitness, coordination, and endurance

2008 - Present

Swimming

- Competitive swimmer for Calphin Swimming Team for multiple years
- Certified American Red-Cross Lifeguard

SKILLS

2008 - Present

Music

- ABRSM Piano Grade 6
- ABRSM Music Theory Grade 5
- played at several Oboe Recitals

2008 - Present

Digital Photography & Video Making

- Youtube Channel: [Christopher Chou](#)
- skilled in Photoshop, Sony Vegas Pro, Camtasia Video editing, and graphics design

2013 - Present

Programming

- Python, Java, C, C++, HTML, CSS, Javascript, Flask, SQL Languages
- competitive programming in USA Computing Olympiad, Hackathons, and robotics
- specialization in machine learning and data science, especially in neural networks and data visualization

Hardware

- PC, XARM Robot Assembly

Languages

- English, Spanish, Chinese