# Kento Nishi

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### **Education and Affiliations**

### Lynbrook High School

2018-present

Class of 2022. GPA: 4.0 (Unweighted).

San Jose, California

#### University of California, Santa Barbara

Santa Barbara, California

Visiting Researcher @ Four Eyes Lab (2020-present) Research Mentorship Program Student (summer 2020) Summer Research Academy Student (summer 2019)

**West Valley College** 

2020-present

Concurrent Enrollment Student

San Jose, California

San Francisco Japanese School

2011-2019

Saturday school supported by Japanese government. Graduated in 2019.

San Jose, California

### **Publications and Awards**

Publication in the Conference on Computer Vision and Pattern Recognition [IEEE-CVPR]

June 2021

"Augmentation Strategies for Learning with Noisy Labels"

pp. 8022-8031

- First author of the full-length paper. Affiliated with the UCSB Research Mentorship Program and Four Eyes Lab.
- CVPR is the #1 most prestigious computer science conference internationally.
- Competed against PhD and graduate students, professors, and professional researchers at top tech companies like Google, Amazon, Microsoft, Facebook, etc.
- Prepared a <u>video</u> and poster. **Presented to researchers in the main CVPR conference** alongside professors and established researchers in June 2021.

**Publication in the Association for the Advancement of Artificial Intelligence [AAAI-21]**"Improving Label Noise Robustness with Data Augmentation and Semi-Supervised Learning" pp. 15855-15856

- First author of the short paper. Affiliated with the UCSB Research Mentorship Program and Four Eyes Lab.
- AAAI is the #5 most prestigious computer science conference internationally.
- Competed against PhD and graduate students at top institutions internationally.
- Presented a poster to researchers in the AAAI Student Poster session in February 2021.

#### **Excellence in Computer Science Award [Synopsys Science Fair]**

March 2021

"Augmentation Strategies for Learning with Noisy Labels"

2020-2021 Season

• Received the \$200 and Certificate of Achievement, Excellence in Computer Science Award: Sponsored by SCVSEFA and Honorable Mention, RRI Physical Science and Engineering Category awards.

#### Lynbrook "Red, White, and Blue" Award

2019-2020

Awarded by Mr. Nate Martell (10th Grade World History)

World History

• Received recognition for academic performance and classroom contributions by Mr. Nate Martell. **Only one student** in 10th grade (approximately 450 students) receives this award for World History.

USACO Gold Division March 2020

Qualified in 2020 US Open Contest

C++

269 of 1762 competitors were promoted to the Gold Division during this contest.

# **College-Level Coursework**

**APs:** Calculus BC (5), Chemistry (ongoing), Computer Science A (5), Japanese (5), Language & Composition (4), Literature & Composition (ongoing), Physics C Electricity & Magnetism (5), Physics C Mechanics (5), Statistics (5)

Subject	Course ID	Institution	Date	Grade	Credits
Intermediate Calculus	MATH 004A	West Valley College	Spring 2022 (planned)		4.0
Linear Algebra	MATH 004C	West Valley College	Fall 2021 (in progress)		4.0
Differential Equations	MATH 004B	West Valley College	Spring 2021	Α	4.0
Computer Programming II (C++)	CIST 004B	West Valley College	Fall 2020	Α	4.0
Presentation Techniques in Research	INT 93P	UC Santa Barbara	Summer 2020	Α	4.0
Introduction to Research Techniques	INT 93R	UC Santa Barbara	Summer 2020	Α	4.0
Research in STEM	INT 93LS	UC Santa Barbara	Summer 2019	A+	4.0

# **Additional Academics**

Name	Category	Date	Description
Stanford Machine Learning Course	Online Course	Summer 2020	Received a certificate for completing "Machine Learning" instructed by Dr. Andrew Ng at Stanford University. Certificate ID: 2A7SM5AGNJFC
NVIDIA Deep Learning Institute Course	Online Course	Spring 2019	Received a NVIDIA Deep Learning Institute Certificate for completing "Fundamentals of Deep Learning for Computer Vision". Certificate ID: 0f17ae21083b444caf0d60afa0ea8f04
AP Physics (Electricity and Magnetism)	Self-Study	Spring 2021	Learned about electricity and magnetism at the AP Physics E&M level. Received a 5 on the AP exam.
Zen Meditation: Beginner's Class	Online Course	Spring 2021	Course @ None Zen Center. Learned the foundations of Zen and its ties to my Japanese background and cooperative moral values. <i>Certificate ID: cert_9z9xvgxr</i>
Zen Meditation: Bridging Class	Online Course	Spring 2021	Course @ None Zen Center. Further studied Zen history and practices. Developed skills for 45+ minutes of continuous, focused meditation. <i>Certificate ID: cert_lsmd8t1v</i>

# **School Extracurriculars**

Name	Time	Description
Computer Science Club	40 weeks / year, 4 hours/week	Co-president (2021-present), Secretary (2020-2021), Member (2018-2020)  Details: Weekly presentations on interesting topics not covered in conventional computer science courses. Introduced project-based learning in collaboration with Machine Learning and Web Development. Created an automated system to tally member attendance points. Organized events such as CS Bowl and contributed sections to the LHS STEM Bowl.
Machine Learning Club	40 weeks / year, 4 hours/week	Co-president (2021-present), Secretary (2020-2021), Member (2019-2020)  Details: Organized and presented lessons relating to machine learning weekly. Introduced inter-club projects and research paper review sessions. Designed the website and set up the club YouTube channel to upload recorded meetings.
Web Development Club	40 weeks / year, 4 hours/week	Project Coordinator (2021-present), President (2020-2021), Lead Developer (2019-2020), Member (2019-2020)  Details: Re-structured the club curriculum, developed new website, started club Discord server, and set up a YouTube channel for uploading meeting recordings. Created AutoScriber (automatic Zoom meeting notes with AI) in collaboration with ML club. Continuing inter-club projects presently.

# **Non-School Extracurriculars**

Туре	Position	Organization	Years	Description
Research	Visiting Researcher	Four Eyes Lab, UCSB	2020- 2021	Research on machine learning. The first author of the 2 papers accepted and presented at IEEE-CVPR-2021(world conference rank #1) and AAAI-2021(#5).
Computer / Technology	Co-Founder	LiveTL	2020- 2021	1 of 2 co-founders of LiveTL, an open source captioning app. 50K+ users world-wide. Lead cross-platform development team from 10+ countries.
Research	Research Intern	UCSB Research Mentorship Program (RMP)	2020	Conducted machine learning research. Proposed a novel state-of-the-art method in a paper and poster. Presented to 100+ students and researchers.
Research	Research Intern	UCSB Summer Research Academy (SRA)	2019	Conducted interdisciplinary research on music and signal processing with 3 other students. Led the development of sound sampling app.
Community Service	IT System Developer	San Francisco Japanese School (SFJS)	2020- present	The sole student developer among 20+ professionals from PTA. Led development for a brand-new library system during the pandemic.
Community Service	IT System Developer	West Valley College	2019- present	Developed the auto-grader system for the Computer Science department at West Valley College.
Community Service	Tutor	Miller Middle School	2019- 2020	Tutored students in math, science, and STEM at Miller Middle School. Helped Japanese ESL students learn English.
Music			2017- present	Composing music using Audiotool and Reaper. Published more than 20 songs. Playing guitar occasionally since junior year.
Running			2017- present	Top-5 Soph/Frosh runner. Continued self-training due to the pandemic. Scheduled to run a half marathon in October 2021.

# **Sports and Athletics**

Sport	Name	Placement
Cross Country	SCVAL Finals 2019	2nd Place (Division Team)
Cross Country	Lynbrook Invitational 2019	Top 25 (Individual)
Cross Country	Lynbrook Invitational 2019	2nd Place (Division Team)
Cross Country	Stevenson Invitational 2019	1st place (Relay Team)
Cross Country	Lynbrook Invitational 2018	2nd Place (Division Team)
Soccer	JYSO Soccer Team (2012-2018)	D Team (Topmost Division)

# **Skills**

Languages: Japanese (native), English (native)

Programming Languages: Python, JavaScript, HTML/CSS, C++, Java

Technologies: Docker, Git, Visual Studio Code, MySQL, Svelte, Vue.js, Linux, etc.

GitHub: 693-day daily commit streak, 15K+ total commits, 110+ total pull requests, contributed to 35+ open source projects

# **Projects**

**LiveTL:** TV-like subtitles for online streams. 50K+ total users, 350+ stars on GitHub, 20+ contributors from 10+ countries **HyperChat:** Subproject by LiveTL (available separately). 3K+ additional non-LiveTL users, 50+ stars on GitHub.

**Pogify:** Synchronized music playback for online streams. 10+ contributors, 50+ stars on GitHub, 15K+ social media likes. **Torch Pitch Shift:** First pitch-shifting Python library with GPU support. Developed alongside *torch-audiomentations* (300+ stars on GitHub) with the open source Asteroid software development team.