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EDUCATION

Basis Independent Silicon Valley - San Jose, CA

Expected: May 2027

GPA: 4.0 (Unweighted) | 4.8 (Weighted)

Relevant Advanced Coursework:

AP - all score of 5

AP Physics C (Mechanics & E&M), Stanford Pre-Collegiate: Light and Heat

AP Chemistry, AP Calculus BC, AP Statistics, AP Computer Science A

Post-AP: Multivariable Calculus, Linear Algebra, Differential Equations, Modern Physics, BioChemistry

PSAT: 1490/1520 (760/760 Math, 730/760 English)

SAT: 1590/1600 (790/800 Math, 800/800 English)

TECHNICAL & RESEARCH EXPERIENCE

STEAMCoach

2023 - Present

Founder & Lead Developer.

- Founded an AI-powered STEM practice platform that grew from a Science Bowl simulator with text-to-speech, buzzer practice, and analytics into tools used by students, educational nonprofits, and local PTAs.
- Designed a solution-centric Automatic Question Generation pipeline for complex STEM/Olympiad problems; submitted research paper to WAIE.
- Extended the platform through Math, For Real by developing Math Forge for targeted practice and learner-performance tracking.

Arrcus Inc.

Summer 2026

Software Engineering Intern

- Developed CLI Composer, an MCP-based agentic pipeline that generates CLI from YANG models
- Worked in a shared production codebase with virtual environments, deployment workflows, and production networking software

Independent Music Technology / ML

2024 - Present

Research & Developer

- Developing a recommender system for music selection tailored to elderly users and cognitive engagement using Music
- Exploring the Music Embedding Models and the field of Music Information Retrieval for song similarity
- Building DSP-based approaches for benchmarks of recommendation models
- Developed a real-time sustain-pedal visualizer using microphone audio and spectral features such as harmonic decay, resonance, and spectral flux to support piano pedagogy.

Algoverse

Summer 2026

AI Researcher

- Investigated LLM reasoning; designed experiments and an evaluation pipeline
- coauthored a paper and submitted to a NeurIPS workshop.

ENGINEERING & ROBOTICS

Programming Lead – VEX Robotics Team

2023 - Present

- Developed C++ autonomous routines using PID control and motion profiling for precise chassis positioning and game-object manipulation. Included integrated inputs from sensors.
- Team qualified for VEX U.S. Open, representing top competitive robotics talent nationally.

MIT Beaver Works Summer Institute – Build a CubeSat Challenge

2025 - Present

Finalist (5th out of ~80 teams)

- Worked on developing lunar dust imaging algorithms
- Evaluated sensor limitations, signal noise, and data interpretation challenges
- Analyzed tradeoffs between system design parameters and scientific objectives
- Contributed to collaborative mission planning and system-level design decisions

Penn Engineering Summer Academy (ESAP) - Robotics

Summer 2026

Selected Participant

- Built an ESP32-controlled robotic piano using solenoids and servos, integrating software, electronics, and mechanics for a robotic-orchestra finale

SKILLS

Programming: Python, C++, Java, JavaScript

Frameworks/Tools: Node.js, MongoDB, NumPy

Systems: Control systems, sensor integration, real-time debugging

Machine Learning / Data: Feature extraction, model prototyping, data analysis

Mathematics: Linear Algebra, Multivariable Calculus

LEADERSHIP, TEACHING & SERVICE

Basis Independent Silicon Valley Science Bowl

2024 - Present

MS President/Mentor; HS Chemistry Lead

- Lead weekly middle-school practices, build prep tools, and train students in STEM content and buzzer strategy; mentored team to 3rd at regionals
- Advised You Be the Chemist Teams; one team made it to nationals
- Serve as High School Team A Chemistry Lead.

Oclef

2025 - Present

Junior Piano Instructor

- Selected through interview process for paid teaching role
- Teach younger pianists, and tailor instruction to individual learning styles and progress
- Help prepare students for Certificate of Merit performance and music-theory exams
- Lead Kaizen initiatives focused on improving teaching, practice, and studio processes
- Developed structured methods to explain musical concepts (timing, phrasing, pedal usage), improving student comprehension

Memory-care / Empathy Concerts

2023 - Present

Volunteer Pianist

- Perform for memory-care residents
- observations from these concerts motivated an ML music-recommendation project centered on familiarity and engagement.

Peer Tutor for STEM Subjects

2024 - Present

- Tutor peers and juniors in math (AP Calculus AB) and chemistry (AP/honors Chemistry);
- focus on first-principles explanations

MIT Build a CubeSat Club

2026 - present

Founder and President

- Founded and lead the school CubeSat club, mentoring peers in satellite design and hands-on systems work

MUSIC & COMPOSITION

Composer & Pianist

2014 - present

- Composed and conducted original piano quartet performance with San Jose Youth Symphony Orchestra
- 3rd Place – State-Level Music Composition Competition
- Released 4 albums on Apple, Youtube, Spotify and Google music.
- Carnatic violinist; perform at community and senior care events

SELECTED HONORS & DISTINCTIONS

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| • National Merit Semifinalist | • AIME Qualifier |
| • USACO Silver (C++) | • ACSL Finalist |
| • Berkeley Chemistry Tournament Medalist | • California State Winner, You Be The Chemist |
| • VEX U.S. Open Division Finalist | • College Board National Recognition Program |
| • 3 x AP Scholar with Distinction | • 3rd Place, State Music Composition Contest |
| • National Latin Exam Medalist -
2 x Gold, 2 x Silver | |