SHIYING “AMY” CHEN

Academic & Interdisciplinary Resume
TVT Community Day School | Irvine, California
amychen9723@gmail.com

PROFILE

Student researcher, musician, and interdisciplinary creator exploring the connections between music, cognitive science, and interactive technology. Experienced in EEG-based music research, biosignal-driven composition, and immersive sound design, with research contributions to NIME 2026 and ICSC 2026. Also active in STEM competitions, student leadership, and school communications.

EDUCATION

Tarbut V'Torah Community Day School | Irvine, California
Expected Graduation: June 2027
Weighted GPA: 4.08/4.00

Relevant Coursework: AP Statistics, AP Biology, AP Psychology, AP Calculus AB, AP Physics 1, AP Music Theory

RESEARCH & PUBLICATIONS

First Author & Student Researcher | NIME 2026
Independent Research, Mentored by Dr. Richard Boulanger

- Co-designed an EEG-to-Csound system that transforms brainwave signals into real-time musical output.
- Refined harmonic and melodic mapping to improve musical coherence and support interactive performance.
- First-authored a research paper published at the International Conference on New Interfaces for Musical Expression (NIME 2026).

Research Collaborator & Third Author | ICSC 2026
Csound Brain Lab | Dr. Richard Boulanger

- Collaborated on research exploring brain-computer music interfaces through EEG-driven composition and performance.
- Third author (of eight) of a research paper accepted at the International Csound Conference (ICSC 2026).

SELECTED INTERDISCIPLINARY PROJECTS

My Soloist Has Leaves | Interactive Music Composer & Performer
EverEverest Foundation Winter Academy | 2026

- Created narrative and sound design for an interactive performance combining plant sensors, EEG, and modular synthesis.

Csound Meta: Dream of Sicily | Interactive Music Composer & Designer
Collaborated with Dr. Richard Boulanger | 2026

- Composed music inspired by St. Agatha and designed interactive sound for a Meta Quest VR experience; project accepted at ICSC 2026.

LEADERSHIP & EXTRACURRICULAR ACTIVITIES

Graphic Designer & Social Media Lead | Lions Racing / STEM Racing USA
STEM Racing USA Competition | 2026

- Designed the team's pit display and led social media strategy, raising its Digital Media score from 6 to 16/20.

Founder & President | School Music Club
TVT Community Day School | 2025–Present

- Founded and led a 25–30-member music club, organizing activities and opportunities for student collaboration and performance.

Student Communications & Social Media Representative | School Communications & Marketing
TVT Community Day School | 2026–Present

- Selected as one of two student representatives; collaborated with school marketing, student life, and athletics teams to create content for official social media and website.

HONORS & AWARDS

- **STEM Racing USA** — California State Champion (Team); National Finals, 6th Place | 2026
- **Singapore & Asian Schools Math Olympiad (SASMO)** — Gold Award | 2026
- **Math Kangaroo USA** — National Rank 8; California Rank 5 | 2026
- **John Locke Institute Global Essay Prize (Economics)** — Commendation | 2026
- **The Congressional Award** — Silver Certificate | 2026