

Eileen Zhuge

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Winston Churchill High School (WCHS), Potomac, MD

GPA: 3.96

WGPA: 4.96

SAT: 1590 (Reading 800, Math 790)

RESEARCH

Research Intern, Johns Hopkins University, Carey Business School October 2024 - present
Mentor: Professor Gordon Gao, Center for Digital Health and AI

- Integrated multiple FDA regulatory datasets using Python to analyze 1,524 AI-enabled medical device authorizations, examining regulatory pathways, review timelines, and post-market safety.
- Applied GPT-5 mini, a large language model (LLM), to classify manufacturer recall narratives into technical failure categories, providing greater specificity than broad FDA Determined Cause classifications.
- Co-authored research accepted for poster presentation at the 2026 IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI).

LEADERSHIP IN BUSINESS, ENTREPRENEURSHIP, AND COMMUNICATIONS

Founder and President, Kits Beyond Sound (www.kitsbeyondsound.com) June 2025 - present

- Direct a youth musician-led initiative dedicated to making sensory learning more accessible for Deaf and Hard of Hearing (DHH) children.
- Lead the end-to-end donation lifecycle, coordinating the collection, sorting, and distribution of 1500+ sensory toys and children's books to local special education programs and DHH organizations.
- Build a community-based donation network by designing and placing handmade KBS collection boxes in churches, synagogues, schools, and community centers, expanding access to donations.
- Organize fundraising initiatives (e.g., bake sales, book sales) to finance the purchase of specialized sensory and educational resources for children with diverse communication needs.
- Maintain and manage KBS's digital education and advocacy platform, scaling the community to 6,000+ followers and achieving a social media reach of over 900,000 people. Focused on producing high-impact educational content, spotlighting individuals within the Deaf and Hard of Hearing (DHH) community, and raising awareness about the everyday challenges faced by DHH children.
- Oversee the development of an original educational technology tool by partnering with a veteran deaf educator and a tech entrepreneur; engineered a 3D-printed tactile C major piano scale that translates musical pitch into touch, using varying depths to physically represent different frequencies; donated 350+ units to DHH and special education programs.
- Manage an international team of 16 student ambassadors across California, Florida, Texas, New Jersey, Canada, Texas, Switzerland, Kenya, and England: oversee regional operations and chapter expansion to scale organizational impact.
- Developed an AI-powered Community Learning Map using Next.js and React, enabling volunteers to locate book-sharing boxes and automatically catalog books from uploaded photos; mapped 150+ boxes and 2,500+ books across 15 U.S. states.

International Content Creator, National DECA August 2025 - present

- Selected for two consecutive years (2025-2026 and 2026-2027) as one of 20 students worldwide on DECA's international Content Creators Team each year, producing original multimedia content for an organization of over 300,000 student members worldwide.
- Create and publish monthly editorial content for DECA Direct Online (DECA's official digital platform), spotlighting competitive events, member achievements, and organizational initiatives.

- Develop monthly visual content featured on DECA's global Instagram, driving 3.8M post views, 2.8M story views, and 6.1M profile views during the Fall 2025 season alone.
- Selected as one of only 12 International ICDC 2026 Content Creators; produced real-time media during the 4-day ICDC 2026 conference that directly generated 3.6M+ Instagram views, 400K+ DECA Direct views, and 23K+ app downloads.

Co-President, WCHS DECA..... May 2026 - present

- Direct entire operations, finances, and a multi-tiered officer board for the biggest club at Winston Churchill High School and the #2 ranked DECA chapter in Maryland.
- Conceptualize and oversee a highly structured, pre-professional competitive training program, securing corporate and industry professionals to judge and critique DECA members' written business events.
- Manage strategic fundraising initiatives, manage overall budget distribution, and direct marketing campaigns and digital outreach across the chapter's Instagram platform to maximize engagement and funding.

Content Creator (TikTok)@ViralScopes.....April 2025 - present

- Manage a TikTok platform focused on real-time market dynamics, growing the account to 6,000+ followers and over 23M+ total views by breaking down viral cultural moments through the lens of behavioral economics.
- Produce data-driven short-form videos and carousels decoding the psychology behind consumer purchasing behavior, influencer marketing tactics, and corporate strategies to make complex economic concepts accessible.
- Leverage audience analytics, digital algorithms, and engagement metrics to optimize content performance, successfully testing behavioral frameworks on a mass digital audience.

Vice-President, Speak2Youth Advocacy (www.speak2youth.com)..... June 2025 - present

- Serve as Executive Vice President of a student-led advocacy organization, managing 21 chapters across 8 US states, Pakistan, and Portugal while scaling operations to include 150+ global volunteers.
- Author career-centered and advocacy-focused lesson content, designing presentations that accommodate diverse learning styles to equip elementary and middle school students with essential communication and self-advocacy skills.
- Manage and design global outreach strategies that extended Speak2Youth's reach to over 200,000+ youth via social media, collaborating with an internationally diverse officer board to empower students to find their voices.

Director of Training, WCHS DECA May 2025 - May 2026

- Supervised a team of role-play trainers, assigning tasks in training delivery across various competitive event categories.
- Planned and led group training sessions and meetings focused on role-play strategy and competition readiness.
- Met one-on-one with 30+ members to support understanding of event options, practice role-play scenarios, public speaking and presentation skills, and provide general guidance.
- Organized and judged mock competition simulations, delivering structured feedback to prepare members for official DECA events such as regionals, states and ICDC.
- Led 40+ members to win at States and qualify for ICDC (International Career Development Conference)

Writing Director, Girls for Business (www.girlsforbusiness.org) January 2025 - present

- Serve as Writing Director for an international organization of 200+ members across 15 countries dedicated to expanding access to business education for youth.
- Manage and edit a team of 12 business staff writers, ensuring factual accuracy, strategic alignment, and stylistic consistency prior to publication.
- Write and publish biweekly analytical articles for the Girls For Business blog and newsletter, reaching 6,000+ subscribers and followers with content focused on analyzing business trends, career pathways, and economic topics

- Support a global platform that has delivered free business mentorship and curricula to 350+ mentees and hosted 32 virtual panel events.
- Collaborate with writers and leadership to strengthen editorial standards and maximize engagement across digital platforms.

Campaign Intern Communications Lead, Julie Yang for Montgomery County Council June 2025 - present

- Lead social media content creation and digital strategy for the campaign, designing graphics and producing multimedia posts across Instagram, X, Facebook, and Bluesky to maximize voter outreach.
- Conduct strategic event research, identifying 200+ community, political, and civic events for the candidate to maximize localized constituent engagement.
- Draft core campaign communications, including targeted emails, event invitations, and community updates, ensuring consistent messaging and brand alignment.
- Organize youth-focused mobilization initiatives and community campaign events to drive voter registration and engagement among younger constituents.

LEADERSHIP IN MUSIC

Pianist (14+ years), Violinist (12+ years)

Co-Concertmaster, Winston Churchill High School Orchestra..... Aug 2023 - present

- Principal (2023-2024), Assistant Concertmaster (2024-2026), Co-Concertmaster (2026-present).
- Lead rehearsals and mentor section members while collaborating with directors and student leaders.
- Selected to perform at the Midwest Clinic International Band and Orchestra Conference in Chicago.
- Help organize annual fruit fundraisers that have raised tens of thousands of dollars to support the orchestra program.

Concertmaster, Maryland Classical Youth Orchestra (MCYO).....August 2021 - present

- Concertmaster at MCYO Young Artists (2021)
- Concertmaster at MCYO Symphony (2022)
- Concertmaster at National Philharmonic – Summer String Institute (2022)
- Co-concertmaster at MCYO Chamber Ensemble (2023)
- Principal at Maryland All State (2024)
- Principal at MCYO Philharmonic (2024)
- Co-concertmaster at MCYO Philharmonic (2026)

AWARDS and HONORS

DECA

- 1st Prize, Maryland DECA, Marketing Management Team Decision 2025
- International Career Development Conference (ICDC) Finalist, Marketing Management Team Decision 2025
- Top 10 Roleplay Score, ICDC Marketing Management Team Decision 2025
- 2nd Prize, Maryland DECA, Marketing Communications 2026
- International Career Development Conference (ICDC) Finalist, Marketing Communication Series 2026
- Top 10 Roleplay Score, ICDC Marketing Communication Series 2026
- Associate in Marketing Management – American Marketing Association..... 2026

Piano

- 1st Prize, Maryland State Music Teachers Association Piano Solo Competition 2015 - 2025
- 1st Prize, 40th International Young Artist Piano Competition 2025
- Alternate, American Masters Music Awards Maestro Carnegie Debut Auditions (Piano) 2025
- 1st Prize, Great Composers Competition – Best Tchaikovsky Performance 2025
- 1st Prize, Great Composers Competition – Best Chopin Performance 2025
- 1st Prize, American Masters Music Awards Classical Music Festival 2024

- 3rd Prize, 11th ENKOR International Music Competition (Piano) 2024
- 1st Prize, Metropolitan Live Classical Music Festival 2022
- 1st Prize, Charleston International Music Competition 2022
- 1st Prize, 36th International Young Artist Piano Competition 2021
- 1st Prize, Miriam Shields Gottlieb Memorial Piano Competition 2020
- 1st Prize, Elite International Music Competition 2018

Violin

- 1st Prize, American Masters Music Awards Classical Music Festival 2025
- 1st Prize, Great Composers Competition - The Music of Germany & Austria..... 2025
- 3rd Prize, 12th ENKOR International Music Competition (Violin) 2025
- Finalist, American Masters Music Awards Maestro Carnegie Debut Auditions (Strings) 2025
- 2nd Prize, American Masters Music Awards Classical Music Festival 2024
- 1st Prize, Global Great Composers Competition - Music of 19th Century 2024
- 2nd Prize, Charleston International Spring Music Competition 2024
- 3rd Prize, Jack Weaver Competition for Strings..... 2024
- Maryland All State Ensembles 2022 - 2024
- 1st Prize, Charleston International European Music Competition 2023
- 2nd Prize, Global Great Composers Competition - Art of Strings 2023

Community Service

- Grant Winner (\$400) of the Contribution Project hosted by the Cornell University Research Team 2025
- Semi-Finalist for the Prequel x Limitless Foundation Young Changemaker Fund..... 2026
- Grant winner (\$1000) of the Karma for Care Foundation..... 2026
- Featured in Channel Kindness, Born This Way Foundation - Co-Founded by Lady Gaga 2026

COMMUNITY ENGAGEMENT

Organizer & Musician, Music with Eileen; Music and Love..... 2022 - present

- Perform weekly concerts at local senior centers.
- Curate and edit social media content.
- Provide piano/violin accompaniment for young musicians.

Organizer, Meals for Maryland Health Workers (GoFundMe)..... 2020

- Raised \$1,550 to provide meals for healthcare workers during the COVID-19 pandemic.
- Delivered 170 meals with handwritten thank-you notes to Holy Cross Hospital, Germantown.

PUBLICATION

- Zhuge, E., Bagdasarian, J. L., & Gao, G. (2026). *Integrating FDA Regulatory Data and an LLM for Characterizing AI-Enabled Medical Devices and Post-Market Safety*. **2026 IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI)**. Accepted abstract and poster presentation; IEEE Xplore publication pending.

SKILLS

- Programming: Java, Python
- Web Development: JavaScript, React, Next.js (AI-assisted development)
- Other Technical: Data Analysis, LLM Applications, 3D Modeling (Tinkercad)
- Languages: English (native), Mandarin Chinese (fluent)

SUMMER PROGRAMS and ADDITIONAL COURSEWORK

- Columbia Pre-College Program – Business and Entrepreneurship 2024
- University of Pennsylvania - Leadership in the Business World 2026
- Women's Leadership Institute - Kelley School of Business (accepted) 2026