

Katherine Shih
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EDUCATION

University of Michigan, Ann Arbor, MI August 2022 – May 2026
Bachelor of Science (B.S.) in Engineering (Electrical), minor in Computer Science

- GPA: 4.0/4.0, Dean's Honor List
- William J. Branstrom Freshman Book Prize (ranked in top 5% of College of Engineering freshman class)

Milton Academy, Milton, MA September 2018 – June 2022

- GPA: 4.0/4.0, Award for Distinctive Academic Achievement
- National Merit Scholarship Finalist, AP Scholar with Distinction Award, Walter A. Beyer Memorial Citizenship Award

WORK EXPERIENCE

National Grid, Transmission Asset Management Intern, Waltham, MA June 2023 – August 2023

- Worked in department that maintains and modernizes the electrical grid to minimize power loss
- Optimized and automated capital work plan for asset replacement prioritization to improve efficiency and accuracy

Physics E&M Study Group Facilitator, Ann Arbor, MI April 2023 – Present

- Facilitate weekly study groups of 14 students to reinforce course concepts and prepare for exams
- Collaborate with other facilitators to create worksheets for course study group program of 100 students

Women in Science and Engineering Residence Program Peer Mentor, Ann Arbor, MI April 2023 – Present

- Led orientation, plan community events with other peer mentors, provide academic and social support for freshman in STEM

RELATED EXPERIENCE

UMARV (Autonomous Robotic Vehicle), Robotics Project Team, Ann Arbor, MI September 2022 – Present

- Design and build robot in a multidisciplinary team to compete in the Intelligent Ground Vehicles Competition
- Work on the embedded systems sub-team, using C/C++, Python, microcontrollers, PCB in Altium, and soldering, to engineer a reliable robot and integrate data from other sub-teams to move the robot appropriately in the environment

Independent Programming Project, Milton, MA May 2022 – May 2023

- Designed and programmed electric vehicle charging station scheduler in Java, PHP, and SQL to create a smoother charging experience for EV users and motivate increase in EV users; worked with faculty sponsor to implement at Milton Academy

VEX Robotics Team, Board Member, Milton Academy September 2018 – June 2022

- Designed, built, and programmed remote-controlled and autonomous robot, competed in national and world competitions
- Coached middle school VEX and FLL robotics teams weekly to foster passion for robotics and STEM in younger students

MIT Lincoln Laboratory – LLRISE, Boston, MA July 2021

- Designed and conducted experiments with radars, developed creative processes and brainstormed with team to ensure valid data, and created PowerPoint slides to present results to peers, researchers, and managers

LEADERSHIP EXPERIENCE

Violinist, Ann Arbor, MI and Boston, MA September 2013 – Present

- University of Michigan Campus Philharmonia Orchestra, first violin and board member
- New England Conservatory Youth Symphony principal violinist, selected for MMEA Eastern District Festival

Transitions and New Student Orientation Mentor, Milton Academy July 2021 – June 2022

- Facilitated programs for 150+ new students and coordinated events to develop community and ensure a smooth transition

Interscholastic Sports, Milton Academy September 2018 – June 2022

- Led and recruited a cohesive, supportive team of 25+ members and achieved record wins (Co-ed Ultimate Disc captain)
- Guided drills and scrimmages and planned team events (Girls' Basketball captain, Girls' Soccer starting defender)

ADDITIONAL

Programming Languages: Java, Python, C++, C, PHP, SQL, MATLAB, HTML, CSS, JavaScript

Languages: English, Spanish, Mandarin, Portuguese. Selected for Spanish Exchange in Madrid in 2020 (canceled due to pandemic)

Volunteering: Newton Wellesley Hospital, math, science, and ESL tutor, tour guide, Music Inclusion Program, Habitat for Humanity, Newton Food Pantry, Greater Boston Food Bank, Special Olympics referee