

Kyler Lin

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EDUCATION

Cornell University College of Engineering, Ithaca, NY
Bachelors of Science in Mechanical Engineering

Graduating May 2028

Honors/Awards: First Tech Challenge World Championships Jemison Division Finalists, Gates Scholar, City Council Citation for Robotics

RELEVANT EXPERIENCE

Robotics Subteam Member, Cornell AutoBoat Ithaca, NY September 2025 – Present

- Collaborate with 50+ member project team to design, manufacture, and compete with an autonomous boat
- Utilizing Fusion360 to prototype precision lightweight three degree of freedom robotic arm

Captain, Metrobotics FTC 14212 Forest Hills, NY September 2022 – June 2024

- Ranked #1 in NY state and #34 in the world for FTC Robotics in 2022-2023 season
- Developed a compact single unit intake/outtake system using Onshape to improve team scoring potential by 200%
- Programmed robot in Java, improving team scoring potential by 150% by implementing odometry and OpenCV
- Organized and ran STEM community events (16 CAD and circuitry workshops, 3 annual STEM Day events, and 7 Queens Metropolitan High School open houses) as well as 2 FTC scrimmages
- Managed team social media

RESEARCH EXPERIENCE

Research Fellow, University of Florida Gainesville, FL May 2025 – June 2025

- Reconstructed interactive dashboard using Python with FUSION-tools for tissue annotation and analysis
- Analyzed high-resolution histological and spatial-omics datasets using FUSION and HuBMAP tools to investigate cellular structures and tissue organization in human organs
- Applied biomarker filters and ASCT+B tables to label vascular cell types in uterus tissue

Student Researcher, Vaughn College East Elmhurst, NY August 2023 – February 2024

- Implemented a blockchain architecture to research blockchain based solutions to secure digital communication
- Leveraged blockchain immutability and hashing to prevent data tampering between nodes
- Competed in Terra NYC STEM Fair and the Junior Science & Humanities Symposium

PROJECTS

Robot Mascot May 2022 – February 2023

- Developed a walking robot inspired by the Strandbeest using a CADed Chassis and Jansen's linkage legs
- Utilizes Arduino and an ultrasonic sensor to autonomously follow subjects and avoid collisions

Flying Dragon Kinematic Automata May 2025 – August 2025

- A hand-cranked mechanical sculpture featuring a rotating base and articulated dragon body segments that rise and fall in a wave-like motion, to explore kinematics and artistic motion design
- Features custom CADed bevel gears and sinusoidal cam

LEADERSHIP EXPERIENCE

Undergraduate Teaching Assistant, Cornell University Ithaca, NY August 2025 – Present

- Assist in two one-hour cooperative learning sessions each week for PHYS 1112: Physics 1, Mechanics and Heat
- Participate in weekly staff meetings and teaching development seminars to enhance teaching skills
- Provide guidance to students to work through discussion problems and grasp key course concepts effectively

Academic Executive Board Member, IEEE Ithaca, NY February 2025 – Present

- Assist in planning academic events, including professor lunches and research crash courses at Cornell
- Design and develop presentation material for academic events

SKILLS

- CAD: Onshape, Fusion360; basic experience with Solidworks
- Programming Languages: Java, JavaScript, C++, Python
- Electrical: Arduino, sensors