Adrian (Yupeng) Li

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EDUCATION

New York University Tandon School of Engineering | B.S. Mechanical Engineering Expected Jan 2027
GPA 3.971/4.0 | Math Minor | Tau Beta Pi | Dean's List

ENGINEERING PROJECTS AND LEADERSHIP

Climbing Robot for Steel Assembly | NYU Senior Design Sep 2025 – May 2026

- Designed and integrated power distribution and control electronics for an I-beam climbing robot, including an Arduino Mega, motor drivers, wiring, and fastening hardware.
- Developed PI climbing-speed control and programmed an automated bolt-fastening sequence, implementing timed motor actuation for the final demonstration.
- Achieved successful two-bolt splice-plate fastening in 4 of 6 full-system trials; project received NYU Tandon's Best Senior Design award.

One-Meter Active Control Glider | Nagoya University SILP, Japan Jun – Jul 2026

- Designed and fabricated a 1.0 m glider using laser-cut ribs, 3D-printed components, and a carbon-fiber spar; integrated an IMU and servo-actuated elevator and rudder.
- Reduced aircraft mass from approximately 380 g to 340 g through iterative redesign; achieved a 35 m competition flight, the farthest in the program's first three years.

Mechanical Lead, Engineer Robot | ARC Robotics, NYU Sep 2026 – Present

- Leading mechanical development of the 2027 Engineer robot, coordinating six-DOF robotic arm design, drivetrain architecture, joint motor selection, and subsystem integration under a 35 kg competition mass limit.

Mechanical Member, Standard Robot | ARC Robotics, NYU Sep 2025 – May 2026

- Redesigned the M3508 gimbal motor mount through three iterations, improving bearing fit, wiring clearance, fastener accessibility, and belt tensioner integration.
- Supported mechanical assembly and integration for competition; team won 1v1 and 3v3 matches and received two Outstanding Presentation awards.

RESEARCH EXPERIENCE

Research Assistant | NYU Composite Materials and Mechanics Laboratory Sep 2025 – May 2026

- Coordinated specimen preparation, corrective machining, and task scheduling for a 300-sample additively manufactured aluminum study; conducted assigned tensile tests and collected experimental data.
- Prepared specimens through mounting, grinding, polishing, and etching for metallographic characterization using optical microscopy and SEM.

Undergraduate Researcher | NYU Undergraduate Summer Research Program Jun – Aug 2025

- Performed molecular and periodic density functional theory (DFT) calculations on five organic cocrystal candidates using Gaussian 16, VASP, and NYU HPC resources to investigate electronic properties.
- Identified a candidate with the smallest calculated band gap (0.066 eV); presented findings through a research poster and educational video.

TECHNICAL SKILLS

CAD and analysis: SOLIDWORKS, Onshape, Fusion 360, ANSYS FEA
Fabrication and testing: 3D Printing, Laser Cutting, Mechanical Assembly, Tensile Testing, Metallography, Optical Microscopy, SEM
Programming and research: MATLAB, Python, Excel, Gaussian 16, VASP, UNIX/HPC