

XIANGLI KONG

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EDUCATION

New York University, Tandon School of Engineering, Brooklyn, NY

Expected Graduation Date: May 2026

Master of Science, Mechanical Engineering (GPA:3.7)

New York University, Tandon School of Engineering, Brooklyn, NY

September 2021-June 2025

Bachelor of Science, Mechanical Engineering (GPA:3.75)

TECHNICAL SKILLS

Programming Languages: C++, C, MATLAB, Python

Tools and platforms: MATLAB Simulink, SolidWorks, AutoCAD, Fusion 360, ANSYS, CFD

Engineering Skills: EIT Certificate in NYS, Product design, project plan / management, rapid prototyping, 3D printing, validation testing, programming, simulation, data acquisition and analysis.

Languages: English, Chinese

WORK EXPERIENCE

Robotic Engineer Intern

Vision X, Remote, Los Angeles

October 2025 – January 2026

- Simulated and optimized robotic arm movements in a warehouse automation project for a major retail client, enabling efficient pick-and-place operations for unpacking goods from boxes by leveraging ROS-based motion planning and simulation tools like Gazebo and Moveit to enhance real-world deployment accuracy.
- Optimized arm positioning accuracy by integrating ROS nodes with camera input and refining joint trajectories, which improved the robot's task-readiness speed in simulated environments by over 30%.

Mechanical Engineer Intern

C.Bechstein, Dresden, Germany

May 2024 – July 2024

- Engineered a safety-lock component for grand piano lid supports to prevent improper rod placement; identified frequent misuse that compromised the lid's stability angle which is 90°, then designed and implemented a stopper to ensure correct insertion, significantly reducing risk of panel collapse and enhancing user safety.
- Designed and manufactured a CNC iron mold for piano components using SolidWorks, incorporating simulation and camera tools to ensure machining accuracy, while strategically maintaining surface draft angles above 3° to reduce failure risks.
- Modeled and engineered the piano's wooden frame in SolidWorks, delivering complete technical drawings to facilitate factory production.

ACADEMIC PROJECTS

Project Mjolnir, NYU

February 2025 - May 2025

- Designed a steering lock mechanism for a tricycle adapted for riders with lower-body disabilities using Fusion 360; developed and 3D-printed a functional prototype showcased at the NYU Tandon Research Exhibit.
- Coordinated project timelines and delegated tasks within a cross-functional team, applying project management skills to ensure on-time delivery and successful exhibition.
- Contributed to the overall tricycle design and development; project won 1st Place at the NYU Tandon Research Exhibit and was recognized with an NYU Project Award.

Capstone Project, NYU

August 2024 – Present

- Led a 5-person team in designing, modeling, and implementing a fixed-wing VTOL drone, managing project timelines and task delegation.
- Performed aerodynamic analyses (motor selection, battery sizing, lift coefficient, wingspan optimization) and CFD simulations in ANSYS to enhance flight efficiency.
- Developed and implemented control systems for yaw, pitch, and roll stabilization using Arduino and C++, achieving stable 3-axis flight.
- 3D printed wing segments and assembled into drone frames. Conducted testing on drone performance, and successfully reaches testing expectations such as VTOL feature and performing 3-axis rotation.
- Integrated a mission planner and coordinated subsystem design, resulting in a successful proof-of-concept and earning Runner-Up Award among all capstone projects.