

JINYU FANG

Mechanical Engineering | Energy Technologies & Sustainability | Materials Research

Brooklyn, New York

jinyuf@bu.edu

linkedin.com/in/jinyu-fang

EDUCATION

Boston University

2024 - 2028

B.S. Mechanical Engineering

- Concentration: Energy Technologies & Sustainability | Minor: Chemistry | GPA: 3.77/4.00
- Coursework: Statistical Thermodynamics, Mechanics of Materials, Material Science, Instrumental Chemical Analysis, Programming for Engineers

EXPERIENCE

Undergraduate Research Assistant

Jul 2026 - Present

BU Mesostructured Materials & Devices Lab

- Research low-tortuosity electrodes using nonequilibrium soft-matter processing to enhance ion transport in high-energy-density batteries.
- Engineer dual-scale porosity to reduce capacity loss during fast lithiation for EV battery applications.

Sustainability Analyst Intern

Jan 2026 - Jun 2026

Sustainable House, Sydney

- Analyzed carbon-emissions and food-waste data in Excel to inform suburb-wide waste-reduction targets.
- Managed aerobic composting units and authored reports translating sustainability data into public outreach.

Sustainability Program Volunteer

Jan 2026 - Jun 2026

University of Sydney

- Selected for a competitive leadership program centered on the UN Sustainable Development Goals; volunteered with local environmental organizations.

Engineering Mechanics Learning Assistant

Sep 2025 - Dec 2025

Boston University College of Engineering

- Guided students through statics, force analysis, and free-body diagrams; presented a peer-learning feedback initiative.

Secretary

Dec 2024 - Present

Boston University Allocations Board

- Supports distribution of \$1,000,000 in need-based funding to 450+ student organizations while maintaining a 48-hour response standard.

SELECTED PROJECTS

Low-Tortuosity Battery Electrode Research

2026 - Present

Energy storage research

- Characterize interdigitated electrode architectures and fabricate 3D carbon-sheet structures for energy storage applications.

Automated Color Sorter

2026

Electromechanical design

- Built a compact five-channel optical sorting device capable of processing 21 objects per minute within a \$200 budget.

Optimized Acrylic Truss

2025

Structural design

- Designed an eight-joint Warren truss and developed MATLAB analysis for axial forces, buckling thresholds, and uncertainty.

TECHNICAL SKILLS

Engineering: MATLAB, SolidWorks, Fusion 360, Arduino, circuit design, stress-strain analysis

Laboratory: UTM, FTIR, UV-Vis, HPLC, XRD

Computing: Python, Excel