

Ashley (Yue Yang) Fu

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EDUCATION

Vanderbilt University, Nashville, TN

May 2026

Bachelor of Engineering | Major: *Electrical and Computer Engineering* | Minor: *Piano Performance*

Cumulative GPA: 3.987/4.000 ([Dean's List](#))

Coursework: Microcontrollers, Data Structures, Electronics, Rapid Prototyping, Laboratory in Machining

PROFESSIONAL EXPERIENCE

Vanderbilt Aerospace Design Laboratory, Nashville, TN

July 2024 – Present

Electrical Design Engineer

- Selected member of Vanderbilt's 7-time winning team in NASA's Student Launch Competition
- Program C++ and ASCII code for payload IMU, integrating Teensy for control and data logging

Advanced Robotics and Control Lab, Nashville, TN

May 2023 – August 2024

Undergraduate Researcher

- Designed motor circuitry with real-time feedback and control programs using microcontrollers
- Developed optimization programs, and performed simulations and data analysis in MATLAB
- Used CAD software, 3D printing, and machining tools to implement the physical experiment
- First author of a paper on "Energy Minimization using Magnetic-Spring Actuators", to be presented at the 2024 *IEEE/RSJ International Conference on Intelligent Robots and Systems*, October 2024

SyBBURE Searle Undergraduate Research Program, Nashville, TN

May 2023 – Present

Research Scholarship Awardee with \$9000+ annual funding

- Developed skills in coding, debugging, and prototyping through team-based projects:
 - Smart plant pot with automated moisture control, display feedback, and interactive sound features
 - 3D potter achieved through repurposing an Ender 3 3D printer and integrating a low-cost syringe pump
- Winner of Best Oral Presentation at the SyBBURE Summer 2024 Research Symposium

LEADERSHIP EXPERIENCE

Teaching Assistant, Nashville, TN

August 2024 – Present

- *Machining Laboratory*: assist students in completion of projects, and provide guidance on the safe use of tools
- *Freshman Engineering Module*: offer one-on-one tutoring on Arduino projects

Society of Asian Scientists and Engineers (SASE), Nashville, TN

April 2024 – Present

Vice President

- Recruited 70+ members and organized club activities for Vanderbilt's first STEM-focused Asian society

Engineers Without Borders, Nashville, TN

December 2022 – Present

Nicaragua Project Manager

- Lead a team of 20 engineering students to design a water-distribution system in a Nicaraguan community
- Organize meetings with professional engineers and two other EWB chapters to facilitate collaboration

SKILLS & INTERESTS

Programming: Java, C++, Python, MATLAB, AVR Assembly

Technical: CAD and 3D Printing, Circuit Design, Electronics Lab Skills

Language: Mandarin (Native), Japanese (Intermediate)

Interests: Climbing, Classical Music, Digital Art