

CHARMAINE GUO

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EDUCATION

Northwestern University
B.S. in Materials Science & Engineering

June 2028
Overall GPA: 3.47/4.00

SKILLS

Computer Languages	Python, Java, MATLAB, HTML, CSS
Soft Skills	Project Management, Teamwork, Time-Management, Adaptability
Hard Skills	Opening and Closing Duties, POS Software Skills
Organizational Tools	Microsoft Excel, Google Drive

EXPERIENCE

Undergraduate Researcher June 2025 - Present
Littelfuse *Beverly, MA*

- Developed an automated Excel database for 300+ reports using Power Query, enabling instant retrieval by part number, package, or leadframe.
- Overhauled the legacy filing system, reducing report search times from hours to minutes for the Beverly team.
- Gained hands-on experience in semiconductor packaging, test calibration, and failure analysis (FA), including chemical/laser decap.

Undergraduate Researcher October 2024 - June 2025
Northwestern University *Evanston, IL*

- Collaborating with a PhD candidate on cellulose crystalline research, focusing on color formation without dyes.
- Studying how UV light cures acrylic acid, solidifying cellulose crystals and creating structural colors
- Analyzing using MATLAB how varying cellulose concentrations affect crystal arrangements and resulting colors.

Hostess July 2022 - May 2024
Carriage House at Lee's Farm *Wayland, MA*

- Met residents' dietary restrictions, including modified diets, food allergies and nutritional requirements.
- Assisted in preparing desserts and small dishes, ensuring proper portioning and presentation.
- Supported kitchen staff with light food prep, maintaining efficiency during peak dining hours.

PROJECTS

Purrfect Care Desktop (WildHacks)
Python, PyQt5, Gemini API *March 2025*

- Built a PyQt5 desktop app with wellness reminders, to-do list, and animated notifications.
- Integrated Gemini API for contextual chat with a virtual assistant cat.

Skynet System Team Project (Design Thinking & Communication)
Onshape, Arduino IDE, ESP32 *January - March 2025*

- Designed solutions for remote zoo access, with prototypes including an interactive online tour prototype built with web technologies and a Hexbug like design.
- Final deliverable: a zipline-mounted camera system enabling live video feed controlled remotely by users.

EXTRACURRICULAR ACTIVITIES

Finance Lead January 2025 – Present
Society of Asian Scientists and Engineers (SASE)

- Organizing fundraisers and managing financial operations, budgeting, and expense tracking.
- Writing grants and collaborating with the club to ensure efficient financial planning and resource allocation.

Power Distribution Management October 2024 – Present
Northwestern Formula SAE (NUFSAE)

- Working on the electrical systems team to design the back box harness and build the top hoop harness.
- Collaborating with the accumulator team to design the low voltage battery box.
- Learning and applying software like Altium, SolidWorks, and RapidHarness.