

CHARMAINE GUO

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EDUCATION

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| Northwestern University B.S. in Materials Science & Engineering Looking for summer job from June 2025-Sept 2025 | June 2028 Overall GPA: 3.25/4.00 |
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SKILLS

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

EXPERIENCE

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| Undergraduate Researcher <i>Northwestern University</i> | October 2024 - Present Evanston, IL |
| <ul style="list-style-type: none">· 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. | |
| Swim Instructor <i>British Swim School</i> | June 2024 - Present Wayland, MA |
| <ul style="list-style-type: none">· Customizing instruction strategies based on knowledgeable evaluations of students' abilities.· Improving students' abilities by demonstrating techniques in an easily understood manner.· Maintaining participant progress by offering regular feedback and technique suggestions.· Leading 16 swim classes per week for over 60 total participants. | |
| Hostess <i>Carriage House at Lee's Farm</i> | July 2022 - May 2024 Wayland, MA |
| <ul style="list-style-type: none">· 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

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| Purrfect Care <i>Python, PyQt5, Gemini API</i> | Desktop (WildHacks) March 2025 |
| <ul style="list-style-type: none">· 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 <i>Onshape, Arduino IDE, ESP32</i> | Team Project (Design Thinking & Communication) Jan - March 2025 |
| <ul style="list-style-type: none">· 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

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| Finance Lead <i>Society of Asian Scientists and Engineers (SASE)</i> | January 2025 – Present |
| <ul style="list-style-type: none">· 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 <i>Northwestern Formula SAE (NUFSAE)</i> | October 2024 – Present |
| <ul style="list-style-type: none">· 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. | |