Christina Ge

(808) 258-0620 | rg759@cornell.edu | Portfolio | linkedin.com/in/christina-ge1/

EDUCATION

Cornell University, College of Engineering, Ithaca, NY **Expected May 2027**
Mechanical Engineering, B.S | Dyson Business Minor for Engineers GPA: 3.7
Relevant Courses: Statics and Mechanics of Solids, Thermodynamics, Object Oriented CS and Data Structures, Dynamics, System Dynamics*, Mechanics of Materials*, Fluid Mechanics*, Foundation of Robotics*, CAM*

RELEVANT EXPERIENCES

TeraDAR, *Mechanical Engineering Intern,* Guilford, CT **May 2025 - August 2025**

- Owned a thermally insulated, air-tight enclosure from concept to test; managed component selection, acrylic prototyping, and hose integration. Tested thermal variance with probes, ensuring reliability from –40 to 140 °C.
- Built custom cooling setups and test fixtures to support the testing and optimization of terahertz radar systems.
- Performed machining and reworks utilizing CNC and manual mill on 120+ aluminum, steel, and copper parts, logging 65+ machining hours on a critical need basis, ensuring no delays on the aggressive build plan.
- Conducted a pressure film study and applied GD&T principles to verify tolerance stackups of components and thermal interfaces, improving thermal performance and informing next-gen design changes.
- Executed delicate assembly tasks on 10+ systems and documented procedures, requiring attention to detail.

Cornell Electric Vehicle Project Team, *Mechanical Lead,* Cornell University **October 2023 – Present**

- Led and mentored a 20+ person mechanical subteam while collaborating with a 75+ member interdisciplinary project team to design and build hyper-efficient, autonomous electric vehicles to compete in Shell Eco-Marathon.
- Analyzed static forces in MATLAB to design acceleration and brake pedals with 25 lbs of feedback force each.
- Pioneered the team's first-ever acceleration pedal design, creating a new system without prior documentation; engineered the feedback force of 20 lbs through MATLAB force analysis to ensure driver reliability.
- Owned the machining of 50+ custom components using CNC, manual mill, and lathe to support vehicle assembly.
- Took over autonomous braking mid-cycle, integrating brake pressure sensor and potentiometer for data collection.
- Designed a battery containment system, increased strength with notch design, and provided housing for PCBs.

EmPRISE lab, *Undergraduate Researcher,* Cornell University **March 2024 - October 2024**

- Developed robots to assist people with mobility limitations in daily tasks, sponsored by Toyota Research Institute.
- Modified the Hoyer Sling's chassis and hooks to enable autonomous transfer of patients up to 200 lbs.
- Integrated motor wheel assembly using steel sheet metal pieces; verified structural integrity with Ansys.
- Rapid prototyped 4 depth camera mounts designed in Fusion 360; contributed to a paper published on HRI.

Feeding Machine Independent Research, *Student Researcher* **August 2021 – July 2024**

- Designed and developed a Liquid Food Feeding Machine Prototype for Seniors with Parkinson's Disease.
- Modeled CAD design on OnShape, rapid prototyped, and assembled with a laser cutter and a 3D printer.
- Summarized insights into a 12-page paper published on the 2nd CONF-CIAP which EI indexes, acquired a patent.

EXTRACURRICULAR ACTIVITIES

Sibley School of Mechanical Engineering Student Council, *Member,* Cornell University **August 2023 – May 2024**

- Organized and managed the 150 Years of Mechanical Engineering one-day events with over 500 participants.
- Designed merch and posters to advocate and organize project team tours for alumni and visitors for the event.

Society of Women Engineers (SWE), *Design Committee Member,* Cornell University **August 2023 – June 2024**

- Empowered female students by contributing to bi-weekly meetings and discussions on engineering fields.
- Designed and published the 8th annual magazine of Cornell SWE by using Canva and Adobe Illustrator.

SPECIALIZED SKILLS

Manufacturing: CNC, manual milling & turning (lathe), laser cutting, 3D printing, waterjet, sheet metal, power tools
Engineering Skills: GD&T, DFM/DFA, FEA, CAM, Technical documentation
CAD: SolidWorks, Inventor, Fusion 360, OnShape, ANSYS, Vault
Programming & Systems: Java, Python, C, JavaScript, MATLAB, Linux, ROS