

Yangou Du

4 St Nicholas Terr Apt 6, New York, NY 10027 USA | yd395@cornell.edu | +1(773)937-0110

Education

Cornell University, Master of Engineering Mechanical Engineering **GPA: 3.82** 2022 - 2023

Notable courses: Innovative Product Design, Computer Aided Manufacturing, Design for Manufacture & Assembly, Dimensional Tolerancing, Feedback Control.

McGill University, BSc. Honors Physics & Computer Science **GPA: 3.65** 2018 – 2022

Notable courses: AI, Intro to Robotics, E&M, Optics, Fluid and Thermal Dynamics, Classical and Quantum Mechanics, Physics Lab Courses, Object Oriented and Functional Programming.

Skills

CAD (Solidworks, Autodesk); Computer Programming (Java, C, Python, HTML, Assembly, OCaml, Matlab); Data Analysis (Python, Matlab); Technical Writing; Troubleshooting hardware and software problems; Problem-Solving;

Work and School Experience

Math Teacher, Success Academy (Harlem West) 8/2023 - present

- Prepare and teach math lessons to students and grade their homework.
- Fill in and organize student data.
- Communicate with parents about student status

Laser system for Plant Dissection, Cornell Organic Robotic Lab(Rob Shepherd), Student Researcher 9/2022 - 5/2023

- Design in **Solidworks** an assembly of parched parts for a laser system.
- **Prototype** the system: Laser cut acrylic sheets, Cut 20*20 extrusions, Assembling.
- Set up interlocks to shut off the laser if the user opens the system.
- **Design** and set up mirrors and lenses to focus laser for cutting.
- Set up and control 3D stage for precise cutting

Distance Measurement with White Light Interferometry, McGill, Student Researcher 1/2022 - 5/2022

- Cleave optical fibers to simulate micro cavity.
- Simulate results with ray matrix transformations in **Matlab**
- Take and analyze data from an interferometer using fft and data fitting.

Ultrasound Imaging of micro bubbles, Polytechnique Montreal, Intern 5/2021 - 8/2021

- Design in **Solidworks** and 3D print lab components.
- Writing **Matlab** script to send and image ultrasound signals with Pulse Inversion and Amplitude Modulation.

Teaching Assistant for Electromagnetism , McGill , T.A 1/2021 - 4/2021

- Lead example problem solving sessions on zoom for students.
- Organize zoom meetings.

Shanghai Children Early Development Research, Assistant 5/2019 – 6/2019

- Interview children of different kindergartens in Shanghai and gather data.

Clubs and volunteering

McGill Students' Boxing Club *Vp internal* 7/2020 – 5/2022

- Organize and Notify club members for events.
- Teach new members how to box.

Volunteer at Orientation *Volunteer* 8/2021

- Welcome and introduce McGill to new students.
- Organize ice breaker events