# **Charles Wright**

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#### **EDUCATION**

Cornell University, Intended Early Master of Engineering in Mechanical Engineering

Cornell University, College of Engineering, Ithaca, NY Bachelor of Science in Mechanical Engineering, Minor in Computer Science

Relevant Coursework: Interdisciplinary Design, System Dynamics, Material Mechanics, Mechatronics, Additive Manufacturing

### WORK EXPERIENCE

#### Steinway & Sons, Astoria, NY

Mechanical Engineering Intern

- Released design changes of piano components, modifying CAD models as well as production line manufacturing processes •
- Drafted and published engineering drawings, construction orders, and standard operating procedures in the company database
- Designed and prototyped fixtures and gauges which increased efficiency in factory production and quality inspection
- Operated and programmed 3-axis toolpaths for LAGUNA SmartShop SUV CNC machines .

### Cornell University College of Computing and Information Science, Ithaca, NY

Teaching Assistant for Introduction to Computing Using Python

- Tutor students with difficult coding concepts such as call stacks, iteration, and recursion during Office Hours •
- Guide students in debugging their solutions to programming assignments during lab sections
- Grade up to 800 assignments, projects, and exams with other TAs during a 24-hour period

### Schwartz Center for Performing Arts, Ithaca, NY

Building Manager/Student Assistant

- Assist in designing and constructing set pieces for 10 or more productions per semester
- Work with power tools and different construction techniques, building wooden flats, platforms, frames, etc.
- Responsible for managing the property and supervising guests renting the space •

#### **RELEVANT EXPERIENCE**

#### Engineering World Health, Cornell University

Integrative Design Subteam Lead

- Design and construct low-cost medical devices for members of underrepresented communities and developing countries
- Organize and orchestrate team meetings while leading the project design process and delegating weekly deliverables
- Collaborate with 2ft Prosthetics to prototype a One-Size prosthetic foot design, with scalable geometry unique to the patient
- Develop procedures to produce custom prosthetic covers using alginate molding, challenging the stigma of artificial limbs

#### Asociación Dominicana de Rehabilitación with 2ft Prosthetics, Santo Domingo, Dominican Republic

- Formed patient casts, constructed plaster molds, cut plastic sockets, and assembled above and below knee prosthetic legs
- Worked alongside professional prosthetists to construct and donate personalized artificial limbs to over 60 patients
- Inputted patient measurements into a CAM socket preset to produce polyurethane molds with a Victor 7-Axis robot

#### Engage 2 Empower Hackathon, Cornell University

- Developed a digital identification system to improve academic retention and job recruitment rates for transgender students
- Collaborated with a diverse team to apply knowledge of software engineering, prototyping, and UX design
- Produced a final functioning product in 3 days and presented to panel of judges and over 100 other participants

#### **SKILLS AND INTERESTS**

Skills: Siemens NX, Fusion 360, CNC Programming, Arduino, Breadboarding, Design for Manufacturing, Power Tools, Milling Programming Languages: MATLAB, Python, C++, Java, OCaml, R, TypeScript, HTML, CSS Interests: Mechanical Design, Technical Theater, Artistic Beading, Swing Dance, Roller Blading, Steel Drumming

Aug. 2021 - Jan. 2024

**Expected Dec. 2025** Expected May 2025

GPA: 3.70

Aug. 2022 – Present

Oct. 2022 – Present

### Sep. 2022

Aug. 2023

## May 2024 - Aug. 2024