

Catherine Powell

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Education

University at Buffalo, The State University of New York

Bachelor of Science, Mechanical Engineering, expected May 2024

Theatre minor with Design/Technology concentration

GPA: 3.738/4.0, *magna cum laude*

Education Abroad: Ireland (Faculty-led theatre program, Summer 2022)

Indiana University–Purdue University Indianapolis

Certificate, Themed Entertainment Design, expected May 2024

Projects

Titan IV Actuator Museum Exhibit Design

Fall 2023 / Spring 2024

- Designed and prototyped an interactive display for a local museum with an unused rocket actuator
- Worked with teammates to perform structural analysis and develop a closed-loop controls system
- Awarded first place in a design presentation with more than 45 projects from the department

Permanent Scenic Installation Design

Summer 2023

- Worked in a multidisciplinary team to design scenic elements for a large American theme park
 - Designed and optimized parts in AutoCAD for fabrication and assembly on site
 - Led a team that created a plan for transportation of large scenic pieces across the country
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Work Experience

TAIT, Lititz, PA

June 2023 - August 2023

Mechanical Design Engineering Intern

- Created and detailed parts in AutoCAD for large projects in the live entertainment industry
- Completed extensive work on the design of a permanent installation for a large theme park
- Communicated with other designers and project managers to ensure timely completion of projects

Master Chong's World Class Tae Kwon Do, East Amherst, NY

January 2018 - June 2023

Senior Instructor

- Instructed and coached Tae Kwon Do students of all ages and belt levels
- Assisted in organization and operation of special events such as fundraisers and competitions
- Trained and mentored junior instructors in weekly staff team meetings

World Class Tae Kwon Do Summer Camp, East Amherst, NY

June 2016 - August 2021

Counsellor/Instructor

- Engaged children with various activities throughout the day
 - Managed groups during field trips and oversaw safety of sports and active events
 - Led groups during early and late camp running hours
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Skills

- Extensive experience in CAD software (SolidWorks, AutoCAD Mechanical, SketchUp)
 - Proficient in French language, New York State Seal of Biliteracy (English/French) (May 2020)
 - Good working knowledge of Microsoft Office (Excel, Word, PowerPoint) and Adobe Photoshop
 - Conversational American Sign Language, Spanish, and Brazilian Portuguese
 - OSHA Forklift Certification (July 2023)
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Activities

Member of Tau Beta Pi Engineering Honor Society

April 2024 - Present

Member of the Themed Entertainment Association

September 2023 - Present

Member of the UB Theme Park Engineering Club (TPEC)

September 2020 - Present

Member of Women in Science and Engineering (WiSE)

September 2020 - Present