

Catherine Powell

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Experience

TAIT, Lititz, PA

June 2023 - August 2023

Mechanical Design Engineering Intern

- Completed extensive AutoCAD work designing structures for a new installation in a large theme park
 - Led a team that created a plan for safe transportation of large scenic pieces across the country
 - Worked closely with scenic department to ensure installation was weatherproof and visually engaging
 - Communicated with other designers and project managers to ensure timely completion of projects
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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, received May 2024

GPA: 4.0/4.0

Projects

Titan IV Actuator Museum Exhibit Design, University at Buffalo

Fall 2023 / Spring 2024

- Designed and prototyped an interactive display for a local museum with a functional rocket actuator
- Worked closely with museum contacts to iterate upon the design and ensure expectations were met
- Awarded first place in a design presentation with more than 45 projects from the department

Pandora's Box Roller Coaster Design, Purdue University

Fall 2023

- Facilitated meetings with a multidisciplinary team to conceptualize a story-driven roller coaster
 - Created queue layout and ride footprint with an existing show building and a proposed budget
 - Used SketchUp to create examples of displays and exhibits to engage guests throughout the queue
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Other Experience

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
- Communicated progress with parents and trained 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 and led groups during early and late camp running hours
 - Managed groups during field trips and oversaw safety of sports and active events
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Skills

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

Tau Beta Pi Engineering Honor Society

April 2024 - Present

Themed Entertainment Association

September 2023 - Present

UB Theme Park Engineering Club (TPEC)

September 2020 - Present

Women in Science and Engineering (WiSE)

September 2020 - Present