# Alexander P. Short

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### **EDUCATION**

The Ohio State University

May 2021; Columbus, Ohio

Department GPA (4.00 scale): 3.38

B.S. Civil Engineering, Minor in Architectural Studies

- Honors: STEM Exploration and Engagement Scholar; Dean's List, Fall 2017; Recipient of Choose Ohio First Engineering Scholarship

## QUALIFICATIONS

- Software: SOLIDWORKS, SOLIDWORKS PDM, Microsoft Office, MATLAB, Arduino IDE
- Coursework: Fundamentals of Engineering, Physics, Chemistry, Calculus, Engineering Economics, Computer Science
- Knowledge of wind turbine design, software design, circuits, materials science, advanced energy vehicles

### WORK EXPERIENCE

Engineering/Maintenance Intern – Sauder Manufacturing Company

April 2018 - August 2018; Archbold, Ohio

- Assisted maintenance and engineering teams to optimize manufacturing processes
- Worked with new product development to create CAD drawings of furniture pieces for production
- Successfully created a full prototype for a new sleep chair model
- Gained understanding of technical communication, teamwork, manufacturing, and machinery

### **ENGINEERING PROJECTS**

Geothermal Well Case Study

August - October 2018, Columbus, Ohio

- Performed financial analysis on the possibility of a geothermal well expansion at The Ohio State University campus
- Successfully completed calculations and written report to provide recommendation to the university

**AEV Project** 

January - May 2018; Columbus, Ohio

- Applied fundamentals of SolidWorks design and Arduino coding to design an advanced energy vehicle
- Received an A on AEV performance test by creating a vehicle to follow various commands

FUNdamentals of Engineering Coaster Design Project

August 2017 - May 2018; Columbus, Ohio

- Designed and assisted in the construction of a model roller coaster through Theme Park Engineering Group
- Applied calculus and physics in design process
- Utilized SolidWorks and 3D printer to assist in design and construction to create a working model roller coaster

#### LEADERSHIP AND ACTIVITIES

STEM Exploration and Engagement Scholars Program – Career Coordinator

August 2017 – present; Columbus, Ohio

- Working with K-12 STEM outreach to raise awareness on STEM careers with students
- Attaining leadership and teamwork experience by making professional development events for scholars

Theme Park Engineering Group – Active Member

August 2017 – present; Columbus, Ohio

- Active member on TEA committee to gain connections and knowledge within the themed entertainment industry
- Attended IAAPA Attractions Expo and SKYnext event at Skyline Attractions in Orlando, Florida
- Gaining a deeper understanding of the Themed Entertainment Engineering Industry

Theta Chi Fraternity, Alpha Lambda Chapter – Philanthropy Co-Chair

August 2018 – present; Columbus, Ohio

- Member of Philanthropy Committee to promote awareness and fundraising for United Service Organizations
- Obtaining a deeper understanding of teamwork, leadership, outreach, and time management

BuckeyeThon – Team Captain and Volunteer

August 2017 – present; Columbus, Ohio

- Gathering experience in leadership, team management, and volunteer work by raising money for Nationwide Children's Hospital