# ALEXANDER KAISER

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## EDUCATION

**Bachelor of Science, Mechanical Engineering** May 2018
University at Buffalo, The State University of New York **GPA: 3.6/4.0**

## RELEVANT EXPERIENCE

### RICH PRODUCTS CORPORATION

**Mechanical Engineer Intern** January 2018 - Present

- Draft precise 3D models of various components utilizing Solidworks
- Prototype functioning models using additive manufacturing techniques
- Validate designs and systems by conducting testing to pinpoint optimal strategies

### KAISER ENGINEERING

**Design Engineer** August 2017 - Present

- Developed the device enclosure and mounting brackets, through iterative designs
- Designed 3D models of automotive gauge clusters, and shift light, utilizing Solidworks
- Prototype various designs using additive manufacturing techniques and CNC machining
- Exercised designing for manufacturability for large volume products

### JOHN W. DANFORTH COMPANY

**Project Management Intern / Estimates Intern** May 2015 – January 2018

- Organized meetings with subcontractors, vendors, and gov't agencies to coordinate tasks
- Drafted estimates for jobs using AutoBid software
- Analyzed technical drawings of floor plans to influence design decisions

## ENGINEERING LEADERSHIP

**UB AIAA**, **Design Build Fly Competition** Fall 2017

- Designed 3D model in SolidWorks so that various parts can be laser printed
- Constructed several prototypes, and improve design through each iteration
- Developed substantial professional documentation to verify design decisions

## PROJECTS

**Interactive Arcade Game** Spring 2018

- Conceived idea for new game, 3D modeled, and then fabricated a functioning model
- Utilized CNC machining to create game platform
- Integrated LED's and programmed them using C language

**Product Design in CAE Environment** Fall 2016
**BMP America Adjustable Packing Tool**

- Conducted FEA on components using Creo 3.0 to understand behavior of design under use
- Utilized Geometric Dimensioning and Tolerancing skills to accurately convey design constraints

**Machines and Mechanisms**
**Wood Splitter Analysis** Spring 2016

- Performed Finite element analysis using Matlab to define weak points of design
- Evaluated estimated lifecycle of existing design, then modified design to increase lifespan

## SKILLS

- CAD Software: Solidworks, Creo Parametric, and Autodesk Inventor
- Computational Simulation: Matlab, Simulink, and Finite element analysis (FEA)
- Programming: Beginner in Arduino, C++, and Python
- Microsoft Software: Excel, Word, PowerPoint, OneNote
- Understanding and experience with additive & subtractive manufacturing methods
- General knowledge of Geometric Dimensioning and Tolerancing (GD&T)