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**

TECHNICAL SKILLS

- CAD Software: Solidworks, Creo Parametric, and Autodesk Inventor
- Computational Simulation Software: Matlab, Simulink, and Finite element analysis (FEA)
- Programming Languages: Arduino, C, C++, and Python
- Professional Presentation: Solidworks Visualizer, Solidworks Composer, Microsoft Office
- Prototyping: Experience: FDM, SLS, SLA, CNC machining
- Design for Manufacturability: Skilled with GD&T, experienced creating technical drawings

EXPERIENCE

Rich Product Corporation | Mechanical Engineer Intern January 2018 - Present

- Draft and continuously iterate 3D models of various components utilizing Solidworks
- Conduct flow analysis to simulate product behavior to evaluate thermal management
- Prototype functioning models using FDM, SLA, SLS, and machining
- Validate designs and systems by conducting testing to pinpoint optimal strategies

Kaiser Engineering LLC | Design Engineer August 2017 - Present

- Created 3D enclosures for digital automotive gauge screens and responsive RPM LEDs
- Prototype various designs using additive manufacturing techniques and CNC machining
- Machined, 3D printed, and finished all components of product in house

John W. Danforth Company | Project Management 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 estimate cost of services

ENGINEERING LEADERSHIP

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

- Designed 3D models in SolidWorks that were later laser printed and tested in our plane assembly
- Constructed several prototypes, iterated by reducing weight while increasing carrying capacity
- Developed substantial professional documentation that was used to present in a technical expo

PROJECTS

Interactive Arcade Game Spring 2018

- Designed a game where members must catch a fast moving LED on game board using user inputs
- Created game platform using CNC machining
- Integrated LED's and programmed them using C language

BMP America Adjustable Packing Tool Fall 2016

- 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

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