

John Keller Ostrander III

532 East College Ave, Apt 405 • State College, PA • 16801 • (610) 639-4608 • 16jostrander@gmail.com

EDUCATION

Penn State College of Engineering
Master of Science in Engineering Design

- GPA: 3.94/4.0

University Park, PA
Expected May 2019

Penn State College of Engineering
Bachelor of Science in Mechanical Engineering

- GPA: 3.16/4.0 (Dean's List Fall 2013 and Fall 2016)

University Park, PA
December 2016

University of New South Wales (Semester Abroad)
School of Mechanical and Manufacturing Engineering

New South Wales, Australia
Spring 2015

EXPERIENCE

Penn State College of Engineering

University Park, PA

R&D Engineer for Entegris: Additive Manufacturing of Intentionally Porous Structures for Gas Filtration (NDA)

6/18-Current

- Researched metal additive manufacturing technologies: Powder Bed Fusion, Directed Energy Deposition, Binder Jetting, and gave production recommendations based on literature review
- Reviewed/presented advantages and limitations of CAD tools (Netfabb Ultimate, ANSYS AM suite)
- Designed experiments altering the materials and manufacturing process to meet product specifications
- Trained on ExOne X1-Lab and ExOne R2 Binder Jetting systems

Graduate Researcher: Virtual Reality and Additive Manufacturing (Education and Design)

1/17-Current

- Conducted research supported by grants from the National Science Foundation (NSF) and the Penn State Center for Online Innovation in Learning (COIL)
- Led experiments with over 100 participants exploring the benefits of virtual reality as an interactive and educational design tool for additive manufacturing
- Presented research at the 2018 International Design Engineering Technical Conferences (IDETC)

R&D Engineer for KCF and Intel: Embedded Sensing Technologies using Additive Manufacturing

5/17-8/17

- Designed and manufactured pump flange concepts with embedded sensors and fit to KCF transmitter
- Researched and procured pressure and temperature sensing technologies fit to project parameters
- Utilized additive manufacturing considerations: build orientation, self-supporting angles, tolerancing

Freelance CAD

AIONX Antimicrobial Technologies, Inc.

8/17-Current

- Utilized DFM techniques to design cases and rail covers for injection molding and thermoforming
- Point cloud scanning data used with CAD to design optimal case and cover fit

Chartlytics

5/17-8/17

- Designed case concepts using HCD and DfAM techniques
- Manufactured prototypes using Material Jetting, Stereolithography, and Material Extrusion

Xact Metal

4/17-8/17

- Constructed a Virtual Reality demonstration of an Xact Metal Powder Bed Fusion Machine
- Presented VR demo at Rapid + TCT 2017 Additive Manufacturing event

Motiv Design

Boston, MA

Internship: Mechanical Engineering

5/16-8/15

- Used hand sketching and CAD to design concepts for Keurig Premium Brewers and packaging for iRobot and Zarbee's Naturals
- R&D for Jarden Sunbeam heating and massage products using market audit, hand sketching, paper prototyping, CAD, and additive manufacturing

SKILLS

Design Thinking, Human Centered Design (HCD), Design for Additive Manufacturing (DfAM), Design for Manufacturing (DFM), Qualitative and Quantitative Analysis, Design of Experiments (DoE), Human Subjects Research (IRB Certified: Social & Behavioral Sciences)
Software: SolidWorks, Blender, Fusion 360, Netfabb, Cura, Unity (C#), SPSS
Hardware: Material Extrusion, Stereolithography, Material Jetting, Binder Jetting, htc VIVE

ACTIVITIES

Mentor to Undergraduate Research Assistant *1/19-Current*
House Manager: co.space Undergraduate/Graduate/Young Professional housing *8/17-8/18*
Mentor to Undergraduate Capstone Project *1/18-5/18*
Undergraduate Resident Assistant *1/14-12/14*