

TRISTAN ANTONSEN

DESIGN & DEVELOPMENT ENGINEER

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WORK EXPERIENCE

2020-Present **Design & Development Engineer - Fast Radius**

- Work with customers to design and bring innovative new products to market by leveraging additive and traditional manufacturing processes.
- Work extensively optimizing parts for Carbon DLS and HP Multi-Jet Fusion along with Stratsys FDM and Formlabs SLA technologies.
- Research and development to advance company capability. Design of new tools for intelligent lattice structure design, topology optimization, and design automation.
- Work cross-functionally to assess and onboard new manufacturing platforms.
- Design illustrative engineering examples demonstrating engineering toolsets and principles. Create and advise photorealistic product rendering.

2019-2020 **Application Engineering Intern - Fast Radius**

- Designed, prototyped, and 3D printed, elastomeric lattice football helmet pads
- Developed methodologies for designing and characterizing compliant 3D lattice structures
- Co-designed marketing product examples and provided photorealistic product rendering
- Supported customer product development projects

2017-2019 **Undergraduate Research Assistant - Ewoldt Research Laboratory**

- Design of a mechanical vibration-isolating testbed for use in the characterization of viscoelastic fluids. Testbed consists of fabricated and 3D-printed parts.
- Developed methodologies and MatLab scripts to optically track testbed vibrations and run signal processing operations in conjunction with a high-speed camera.

2017-2019 **Artist Blacksmith - Antonsen Forge**

- Sold handmade art, tools, and jewelry from steel, bronze, and other metals.
- Offered several standard production items along with bespoke custom pieces including knives, hammers, and other tools fully finished and heat treated.
- Offered several small-scale introductory-level blacksmithing courses

Education

University of Illinois at Urbana-Champaign

Major: Mechanical Engineering

Minor: Art & Design

Highlighted Skills

- Proficiency in CAD modeling and surface modeling
- Data-driven design and optimization
- Finite element simulation
- Photorealistic 3D product rendering