

# Shea Smith

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## EDUCATION

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### Northwestern University

ANTICIPATED 2028, BS IN MECHANICAL ENGINEERING (ROBOTICS CONCENTRATION) | 3.95 GPA

Anticipated June 2028

Evanston, IL

## SKILLS

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*Software:* Onshape, SolidWorks, CATIA, Fusion 360, Adobe Creative Cloud, Microsoft Office Suite

*Programming:* MATLAB, Python, Racket, C

*Fabrication:* CNC plasma cutting, lathe, manual mill, 3D printing, welding, woodworking

*Composites Manufacturing:* metallic tooling design, composite tooling design, wet layup, prepreg layup, resin infusion, microscale composite material analysis

*Private Pilot:* 19 hours of private pilot training completed

## WORK EXPERIENCE

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### Beta Technologies

July 2024 – Present

Second Year Intern, Composites Team

Burlington, VT

- Identified bottleneck in MFG engineering workflow where labels are fitted onto ply shapes by hand, created polygon nesting script to automate label placement, integrated script into shop's production software stack saving hours on each build package
- Designed first production composite tool, pioneering company goal of in-house composite tooling
- Proposed a new way to create master models for composite tooling with greatly improved lead time; 3D printed test articles and implemented 3D scanning to assess viability
- Designed tooling parts and assemblies with Solidworks CAD software using surface modeling tools
- Used 3DX product lifecycle management software and modeled manufacturing parts parametrically to ensure model stability in revisions of reference geometry by upstream teams
- Generated drawings for parts and assemblies that meet ASME airframe standards for GD&T

### Beta Technologies

Apr 2024 – Aug 2024

First Year Intern, Composites Team

Burlington, VT

- Laid up over 30 production and RND composite parts using prepreg and resin infusion
- Recorded microscope images of composite laminate cross sections and configured image processing software to calculate internal porosity to inform manufacturing process decisions
- Collaborated with the fabrication shop to design and manage the construction of a 500°F-resistant batch cart for use in a large composites oven, validated design using FEA, oven cycle times improved due to quick loading
- Manufactured fiberglass test coupons per AMS3915 and coordinated short beam shear and tensile tests

### GloryBurger LLC

June 2021 – Present

Co-founder

Richmond, VT

- Founded and managed a food truck business with revenue-to-date exceeding \$200K
- Built a food trailer from the ground up on top of a flatbed frame; complete with a custom-welded fryer exhaust system, running hot and cold water, electricity, and built-in cooking implements
- Outfitted a second stationary trailer with cooking implements, running water, and appliances to centralize inventory storage and food-prep operations; enabling delegation of full operations to employees
- Implemented standard operating procedures to maintain wait times under 10 minutes even with 50+ person lines
- Used bookkeeping software to categorize expenses and analyze changes in profitability over time