

Abby Bigaouette

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Aerospace-grade mechanic building a road to space. Extensive experience in high-impact design and multimedia production. Previously led the design team at Tahlequah Daily Press, where I coordinated editorial direction as well as newspaper and magazine production.

Experience

Subassembly Technician, Blue Origin	2024 - Present
• Assemble and test pneumatic, hydraulic, and monopropellant subassemblies for New Glenn's first stage.	
• Installation of high performance insulation materials. (Cryogel-Z, SOFI, MLI, proprietary TPS materials)	
• Operate in cleanroom and ESD controlled environments to preserve component cleanliness and system integrity.	
• Certified in Laser Operation and part marking per AS478 and internal specifications.	
• Perform precision drilling and machining operations on large structures.	
• Interpret engineering drawings and 3D models in Creo.	
• Perform avionics work including soldering, wire harness installation, inspections, and repairs.	
• Contributed code bugfixes to internal software products.	

Head of Design, Tahlequah Daily Press	2022 - 2024
• Coordinated editorial direction and production of the Tahlequah Daily Press and Claremore Progress.	
• Designed two newspapers daily and 10 magazines yearly, managing tight deadlines and multi-project workflows.	
• Overhauled production workflows, leading to an 88% improvement in ability to meet daily print deadlines.	

Projects

Personal Website	2016 - Present
• Built and maintained personal website using Jekyll and GitHub Pages.	
• Designed custom responsive UI inspired by classic Mac OS aesthetics with multiple theme and accessibility options.	
• Hosts blog, projects portfolio, and resume with automated deployment	
High-Power Rocketry	2019 - Present
• Utilizes novel construction methods to dramatically reduce the cost to build and fly high power rockets.	
• Demonstrated rapid reusability by flying the same rocket twice in a 24-hour period.	
• Designed, assembled, and debugged custom avionics PCBs including flight computers and telemetry systems.	
• Level 2 High Power certified.	
Liquid Propulsion	2023 - Present
• In development 1000N (225 lbf) IPA-nitrous engine.	
• Fired a subscale hybrid motor, gaining experience handling nitrous, GSE design, and operation.	
• Utilizes Onshape and OnScale for design and simulation.	
• Creates detailed engineering drawings and work instructions for suppliers and assembly operations.	

Skills, Awards, and Certifications

Technical: CAD (Creo, Onshape, Autodesk Fusion, KiCad); 3D Printing (FDM, SLA, SLS); Welding (MIG, TIG); Composites Manufacturing (fiberglass, carbon fiber); Precision Drilling; Rigging & Lifting; System Testing; Project Management

Software: Python; C# .NET; Web Development (HTML, CSS, JavaScript)

Design & Media: Adobe Creative Cloud (Illustrator, InDesign, Photoshop); Serif Affinity (Designer, Photo, Publisher); Davinci Resolve; AP Style

Certifications: Laser Operator, Multi-Layer Insulation/MLI Installation, Cleanroom Entry and Operations, Hydraulic and Pneumatic Testing, ESD Protected Area (Blue Origin); Level 2 HPR (National Association of Rocketry)

Awards: Sequoyah Award, Oklahoma Press Association (2024); Newspaper of the Year, Best of CNHI Div. II (2024); Newspaper of the Year, Best of CNHI Div. III (2023)