

SUMMARY:

Mechanical engineer with a strong interest in Additive Manufacturing (AM) and an affinity for design. Looking to gain experience in design and management, and continue developing side projects for personal fulfillment.

EXPERIENCE:**UNIVERSITY OF DAYTON RESEARCH INSTITUTE;** 11/2023 – Present

Associate Process Engineer

- Design parts, fixtures, and machining plans for components made with laser powder bed fusion AM
- Work with internal and external contractors to produce custom parts made using various AM platforms
- Develop processes and documentation for operation and maintenance of industrial AM machines
- Develop and administer training to military personnel on the operation of EOS M 290 AM machines

DEADEYE DESIGN, LLC; 09/2017 – Present

Owner / Operator / Designer

- Collaborate with customers to design and 3D print custom products using FFF and SLA/DLP printers
- Adjust, print, and post-process dental surgical guides and arch models for professional use
- Independently develop standalone concepts and products to be marketed to vendors and individuals

UNIVERSITY OF DAYTON RESEARCH INSTITUTE; 04/2018 – 10/2023

Additive Manufacturing Lab Technician

- Set up, monitor, and unload LPBF and FDM AM builds; advise engineers on best printing practices
- Maintain equipment/facilities and monitor errors; ensure builds continue through necessary operations
- Contribute to creation and optimization of forms and processes used, including USAF Technical Orders
- Advise colleagues on printing technologies employed in personal business for adoption and use

FUTURA DESIGN SERVICE, INC.; 02/2017 – 04/2018

Mechanical Designer / Draftsman

- Implement geometric dimensioning and tolerancing to fully define drawings per customer specifications
- Create and/or alter 3D models and corresponding 2D drawings to meet contract design criteria
- Review and adjust existing models and drawings to ensure all requirements met for release to customer

PRESS TECHNOLOGY & MFG., INC.; 05/2016 – 08/2016

Contracted Mechanical Designer / Draftsman

- Assist with the design, FEA simulation, and manufacture of a custom-order pressurized screw press
- Create 3D models and render photorealistic images of existing screw presses for advertising use
- Create 2D drawings from 3D models to be used in sheet metal forming processes

EDUCATION:**UNIVERSITY OF DAYTON;** Mechanical Engineering; 08/2019 – 05/2023

- Completed BS in Mechanical Engineering; special interest in design and additive manufacturing
- Attended classes part-time while working full-time at UDRI and running DeadEye Design

SINCLAIR COMMUNITY COLLEGE; Mechanical Engineering, Machining; 05/2017 – 08/2020, 08/2024 – Present

- Currently working towards certification in precision machining to improve manufacturing capabilities
- Took non-degree courses in architectural drafting, business law, and visual arts to support business

NOTABLE PROJECTS:**UNIVERSITY OF DAYTON RESEARCH INSTITUTE:**

- Responsible for writing & revising major portions of USAF Technical Orders outlining EOS M 290 Operation
- Sole technician entrusted to set up, monitor, unpack, and advise engineers on multiple sensitive projects
- Responsible for diagnosing, repairing, and assembling a previously non-functional Sintratec SLS printer

DEADEYE DESIGN:

- Designed and manufactured custom business cards with multiple moving components
- Designed and manufactured a custom stage mask with moving components using T-Spline modeling

UNIVERSITY OF DAYTON:

- Designed, printed, and assembled tray-table attachments fitted to assistive seating for disabled youth

SKILL SETS:**SOFT SKILLS:**

Detail-oriented • Self-starting • Organized • Creative • Efficient • Communicative • Fast-learning

HARD SKILLS:

- Applied: Technical Writing; GD&T; Design for AM; Manual Machining; ProtoTRAK CNC; G-Code
- Parametric CAD: Dassault Systèmes SolidWorks; Autodesk Inventor, AutoCAD, Fusion 360
- Additive Manufacturing Machine Platforms:
 - Industrial: EOS M 290, M 400-4, P 810; Colibrium Additive M2 Series 5; Stratasys Fortus F900, 450mc
 - Consumer: Formlabs Form 2; Bambu Lab P1S; Elegoo Saturn 3; Prusa MK3S+; MonoPrice Maker Select
- AM Slicing and Editing Software:
 - Industrial: Materialise Magics; EOSPrint; Stratasys Insight; Autodesk Meshmixer
 - Consumer: Ultimaker Cura; PrusaSlicer; Formlabs PreForm; Bambu Studio; Voxeldance Tango

CERTIFICATIONS:

- Parametric CAD: Certified SolidWorks Professional, Certified SolidWorks Associate
- Engineering Skills: ASME Y14.5-2018 GD&T Fundamentals