

Troy Hayden

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Relocating to Draper, Utah

Portfolio: [Troy Hayden \(troyhaydenengineer.com\)](http://troyhaydenengineer.com)



EXPERIENCE

TIE DOWN ENGINEERING, Atlanta, GA

March 2022 – Present

Mechanical Design Engineer

- Drove cross-functional teams in the delivery of high-risk, complex programs/projects in product development
- Executed testing and documentation assuring compliance with regulations (internal, governmental, and environmental)
- Evolved quality procedures and instructions for inspection and testing of manufactured products based on customer, engineering, consumer, and regulatory test standards
- Performed simulations in SolidWorks (stress analysis, displacement, fatigue, Factor of Safety, motion study)
- Created component and detailed assembly drawings using GD&T and Tolerance Stack-Up
- Initiated and led 3D printing program which streamlined rapid prototyping, and introduced new fixturing techniques
- Patents: 1 functional, 4 contributions

PLAE, Canton, GA

June 2021 – March 2022

Product Design Engineer

- Funneled product concepts and specs, manufacturing controls per part, production part drawings, engineering marketing material, specifications for outsourcing (paint and various machining methods)
- Implemented Product Data Management in SolidWorks working towards Industry 4.0 and Lean Sigma Six
- Created product development timelines and supply chain dependencies, and curated weekly report for leadership team
- Developed engineering processes and documentation for manufacturing of multiple product lines
- Consulted in factory layout and workflow including flat laser, tube laser, press break, prototyping, automated welding, paint booth, acid wash, and packaging cells
- Completed training and practice in CNC fabrication techniques including flat and tube fiber laser, press brake, router, weld automation, prototyping tools including Ultimaker S5 3D printer
- Patents: 2 design, 1 functional

HEARTHSTONE ENVIRONMENTS, Marietta, GA

June 2019 – June 2021

Project Manager

- Constructed CAD models and drawings for custom, luxury pool designs in the Atlanta Metro Area
- Managed 11+ sub-contractors during onsite construction and offsite planning including invoicing, site prep, and inspection

THOMPSON EHLE COMPANY, Atlanta, GA

May 2017 – Aug 2017

Design Intern

- Drafted private and commercial HVAC systems in Revit including hospitals, hotels, and schools
- Worked within an engineering consulting team environment to design and complete cross functional projects

SKILLS

Engineering: GD&T, Lean Manufacturing, Part development for: Plastic Injection Molding, Steel Casting, Forging, Aluminum Alloy Extrusion, Machined Plastic and Metals, Coldworked Fasteners, Laser Cut Steel, Finishes, Coatings, Hardened Parts

Certifications: SolidWorks Associate, 3M Fall Protection Qualified Engineer, Google 'Project Management Professional'

Software: SolidWorks, KeyShot, PTC Creo, ANSYS, Rhino, Visualize Pro, DaVinci Resolve, Composer, Adobe Creative Suite

Programming: MATLAB, vPython, LabVIEW, RGui, G-code, Cruzart, Trumpf Sheet and Tube Software Suite

Other: Open Water Diver SSI, Continued education with Coursera and Brilliant

EDUCATION and LEADERSHIP

KENNESAW STATE UNIVERSITY, Marietta, GA

Aug 2018 – May 2021

- B.S. Mechanical Engineering, Senior Design: SAE Racecar prepreg composite suspension

GEORGIA INSTITUTE OF TECHNOLOGY, Atlanta, GA

Aug 2013 - Dec 2016

- Division I Athlete - Track & Field and Cross-Country, ME2110 robot competition voted best design

EAGLE SCOUT