

Troy Hayden

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Salt Lake City, UT

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



EXPERIENCE

SUBZERO ENGINEERING, SLC, UT

March 2024 – Present

Lead Sales Application Engineer

- Led technical discovery and converted requirements into SOWs, drawings, BOMs, RFIs, and approved submittals for structural containment systems
- Produced proposals with alternates/VE; de-risked cost/schedule through design clarifications and change control
- Drove quote → submittal → fabrication → install handoffs; maintained change/risk logs and commissioning readiness
- Launched in-house aisle-frame fabrication and SIOP inputs to improve lead time, quality, and cost predictability
- Trained and led a 10-member SAE team; standardized workflow/templates/calculators/design reference material
- Designed and managed structural HAC; qualified a new Vietnam custom manufacturer. Delivered on time with strong cost performance (+\$640K Gross Profit).
- Serverfarm (AWS) 60-aisle LC HAC: Authored scope/discovery; coordinated aux steel & electrical-room supports; managed changes (+\$1.8M) on \$8.2M base. Designed proprietary steel structure connection methods
- Delivered across retrofit/live and greenfield, single/multi-story, low/high-seismic construction
- Took “DAB panel” from new acquisition to adoption (pricing, sales organization, existing product integration)

TIE DOWN ENGINEERING, Atlanta, GA

March 2022 – March 2024

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, specs 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, supply chain dependencies, and weekly report for leadership team
- Developed engineering processes and documentation for manufacturing
- Consulted in factory layout and workflow including flat laser, tube laser, press break, prototyping, automated welding, paint booth, acid wash, and packaging cells
- Patents: 2 design, 1 functional

SKILLS

Engineering: GD&T, Kaizen, Part Design: Plastic Injection Molding, Steel Casting, Forging, Al Extrusion, Machined Plastic and Metals, Coldworked Fasteners, Laser Cut Steel, Finishes, Coatings, RCA

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

Software: Bluebeam Revu, SolidWorks, Revit, Navisworks, Excel, Monday.com, Building Connected, Procore, Infor

Programming: MATLAB, vPython, LabVIEW, RGui, Trumpf G-Code Suite, Copilot Studio

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

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