

# Troy Hayden

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Salt Lake City, UT

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



## EXPERIENCE

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### 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 aisle frame and containment projects
- Engineered and supported structural HAC systems that integrated power busway, telecom cabling, mechanical airflow components, and load-bearing infrastructure, ensuring compliance with electrical and mechanical design requirements.
- Supported in-house aisle-frame fabrication and SIOP inputs to improve lead time, quality, and cost.
- 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
- Led new product integration in containment and aisle frame divisions

### 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

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**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

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### 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

Confidential