

- Mechanical design, integration, testing and implementation of automated laser welding station
- Industrial control network design and programming for autonomous agriculture system with human interface
- Industrial robot programming and integration with tooling, work holding and pneumatic fixtures
- Project management for component manufacturing and installation

June 2011 - October 2015

Remote Ocean Systems

San Diego, CA

Senior Mechanical Engineer

- Hired by an industry leader in the design of high-tech equipment and systems for subsea, oceanographic, industrial, commercial and military environments
- Perform as a high-level designer and project manager with a focus on submersibles and components
- Act as point-of-contact for all lights, cameras & pan and tilt units
- Duties include complete life-cycle Project Management for many products and components
- Act as a mechanical liaison for manufacturing and sales based on successful business communication skills
- Handle new product specifications, development and mechanical design of assemblies and components
- Utilize Glass and Sapphire for pressure vessel design work

January 2010 - June 2011

General Atomics

Poway, CA

Mechanical Engineer

- Responsible for the design and implementation of payload components and assemblies mounted on unmanned aircraft
- Tasked with engineering change control, aircraft systems integration and mechanical assembly design using Pro/Engineer
- Did prototype development, release to manufacturing and managed data flow both up and downstream

December 2006 - December 2009

SeaBotix, Inc.

San Diego, CA

Mechanical Engineer

- Hired by world-leading manufacturer of small ROV systems to design, manufacture and produce mechanical and electro-mechanical components and assemblies for use in remotely operated submersible vehicles
- Managed numerous projects to successful completion building and integrating new devices and components
- Performed finite element analysis, pressure vessel analysis, engineering calculations and complete system integration

February 2004- December 2006

OxyHeal Health Group

San Diego, CA

Project Engineer

- Primarily responsible for the design, manufacture and installation of welded hyperbaric chambers
- Contributed knowledge of pressure hull analysis, correct manufacturing process and standards, detailed construction project management and end-user interface design
- Direct engineering management, successful design of new and reengineered pressure hulls and project completion utilizing SolidWorks and AutoCAD were notable achievements
- Utilized: ASME, PVHO, LSC, FDA, & NFPA codes for analysis and implementation to get chambers certified for human occupancy

November 1999 – May 2003 Mechanical Engineering Machine Shop Carbondale, IL
Machinist Apprentice

- Research Equipment Design
- Manufacturing using mill, lathe, welder and other machine shop tools.

April 1994 – April 1998 United States Marine Corps

Small Arms Technician

- Directed the security and maintenance of assigned weapons and ammunition.
- Honorable Discharge

Education

Southern Illinois University B.S. Degree Mechanical Engineering 2003

Notable course work:

- Independent Study: Design and Manufacturing of a Formula SAE Frame and Suspension
- Senior Design: Implementation of Airfoils to enhance dynamic performance of a Formula SAE racecar
- Mechanism Design
- Finite Element Analysis
- Applied Fluid Dynamics

University of California San Diego – Extension Embedded Engineering 2021
Embedded Systems Design

Certifications &

Skill Sets

- **Professional Engineer License**
- **Lean Six Sigma Yellow Belt**
- **Leadership Skills Course**
- **Supervisory Skills Course**
- **Mechanism Design**
- **Hydraulic Design**
- **Pneumatic Design**
- **Solid Modeling (SolidWorks, Pro/E, Inventor)**
- **Finite Element Analysis**
- **GD&T**
- **Programming (C/C++)**
- **Automation System Design & Integration (PLC, Sensing, Motor controls, GUI)**
- **Fabrication: Welding, Machining on mill & lathe, shop tools**

Interests

Photography, Electronics, Cooking, Biking, Scuba Diving, Sailing, Backpacking, Snowboarding