**CHRIS DiSALVATORE**

**PO Box 2193**

**Pinellas Park, Fl. 33780**

**727-492-1240**

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**Career Summary**

Senior/Lead Mechanical Engineer with 20+ years of experience in Computer Aided Design (SolidWorks, AutoCAD), Thermal (Solidworks Flow Simulation, Thermal Desktop) and Structural (Solidworks Simulation for Shock, Sinusoidal and Random Vibration) Finite Element Analysis. Experience includes leading several projects from inception through design and manufacturing phases on to production. Applications include Electro Mechanical packaging, opto-mechanical design, vibration testing, large structure design, precision mechanism design, and robotics for military, commercial, space, medical, and green technologies.

**Professional Objective**

Seeking a position as a mechanical engineer in a long-term contract, contract to hire, or direct hire position. Looking for career placement that will utilize the best strengths of my experience in order to make the maximum contribution to the company’s business objectives. Also interested in the opportunity for advancement toward lead or project management opportunities and the mentoring of younger engineers.

**Latest Clearance Level**: Confidential (2014)

**Education**

University of Maine, Orono, Me. 1982

BSME Equiv (BSMET) - Accumulated Technical GPA: 3.3 of 4.0

**Subsequent Courses**

* Autodesk Inventor 2024 – Online Trial 2024
* Siemens NX Simcenter 3D (NASTRAN) CAD/Analysis Program - Online Trial 2024
* Parametric Technology Corporation 2005
  + Fast Track – Pro Engineer - Wildfire 2.0 CAE/CAD
* PDA Engineering, Costa Mesa, Ca. 1987
  + PAT101 – PATRAN G
* Northrop Electronics Division, Hawthorne, Ca. 1986-1987
  + ANSI Y14.5M – 1982 – Dimensioning & Tolerancing
* California State University, Long Beach, Ca. 1986
  + MSME Program Course, Advanced Materials Engineering (Metallurgy)
* Control Data Corporation, El Segundo, Ca. 1985
  + ICEM-DDN, Computer Aided Engineering

**Computer Skills**

**Thermal Analysis (15,000+ hrs)**

* SolidWorks Flow Simulation (COSMOS) – 2011, 2017, 2018, 2021 (8000+ hrs)
* Thermal Desktop (CINDA) - (6000+ hrs)
* TNA (3000+ hrs) – (Program designed by David Steinberg)
* CINDA (2000+ hrs), SINDA (2000+ hrs)
* MECAD (1000+ hrs), SAUNA (300+ hrs)
* TAK 2000 (200+ hrs), HTS (200+ hrs), SDRC (100+ hrs)
* Siemens NX-IDEAS 5 (1000+ hrs)

**Structural Analysis (7000+ hrs)**

* SolidWorks Simulation (COSMOS) 2011, 2017, 2021, 2023 (6000+ hrs)
* ANSYS (1000+ hrs), COSMOS (200+ hrs),
* MathCAD (200+ hrs)

**Design (35,000+ hrs)**

* SolidWorks (20,000+ hrs) 3D Conceptual & 2D Detail Design
* AutoCAD (10,000+ hrs) 3D Conceptual & 2D Detail Design
* Pro Engineer - Wildfire 2.0 (2000+ hrs) 3D Conceptual Design
* ICEM-DDN (7000+ hrs) 3D Conceptual & 2D Detail Design

**Professional Experience**

**Textron, Tru Simulation, Lutz, FL June 2023 to Dec 2023**

Mechanical Engineer/Analyst

* Mechanical Design and Structural Analysis of Flight Simulator Hardware
* Design and Analysis of Pilot and Copilot Motion Seat
* Design of Aircraft Cockpit Components for Simulator Build
* Solidworks 2023 Computer Aided Design, Simulation Analysis, PDM Documentation

**Kearfott Corporation, Little Falls, NJ February 2020 to May 2022**

Mechanical Engineer/Analyst

* Complete Thermal and Structural/Modal Analyses for RLG Navigation Systems and Support Electronics
* Analysis Reports and Presentation Material for Preliminary and Critical Design Reviews
* Solidworks 2021 Premium CAD, Simulation, Flow Simulation, and PDM Documentation

**TopMax At Thales, Aurora, IL January 2018 to February 2020**

Mechanical Engineer

* Complete Mechanical Design/EM Packaging of Commercial Pilot Head-Worn Display System
* SolidWorks 2017 Premium CAD - 3D Conceptual Design of Electronic Enclosure
* Structural and Thermal Analysis of Electronic Enclosure - Solidworks 2017 Simulation/Flow Simulation Software

**L-3 Space and Navigation, Budd Lake, NJ May 2016 to March 2017**

Thermal Engineer/Analyst

* Complete Thermal Analysis of Fiber Optic Navigation System – NASA Space Application
* Thermal Model Verification of TVAC Testing – Analysis Results Correlated to Thermocouple Data < 1 deg C
* Analysis Data Input for Design Modifications, CDR Preparation, Final Reports
* Thermal Desktop V5.8, SINDA/FLUINT, TD Direct - ANSYS SpaceClaim Engineer

**Columbus McKinnon, Sarasota, Fl October 2015 to April 2016**

Senior Mechanical Engineer

* Conceptual Design of Tire Shredding Systems and Mechanisms
* Integration of detailed conceptual sketches into 3D CAD solid models
* SolidWorks 2015 3D Conceptual and 2D Detail Design, Documentation, BOM Generation

**Harvest CROO, LLC., Tampa, Fl September 2014 to February 2015**

Senior Mechanical Engineer

* Completed Full Mechanical Design of Robotic Berry Picking System
* Robotic Mechanism Design (Pulleys, Gears, Sprockets, Bearings, Couplings, Springs, Stepper Motors, etc.)
* SolidWorks 2014 – Mechanical Analysis, 3D Conceptual and 2D Detail Design, Follow Through to Fab and Assy

**L-3 Cincinnati Electronics, Mason, Oh September 2013 to January 2014**

Senior Mechanical Engineer

* Completed Full Thermal Analysis of NASA Space Launch System Solid Rocket Booster Avionics
* Line Replaceable Unit Electronics – Booster Controller and Power Distribution, Ignition Separation Controller, Hydraulic Power Unit Controller, Actuator Control Unit
* NX-IDEAS 5 – Simulation - Finite Element Thermal Analysis
* Development of Materials Identification and Usage Lists per NASA Materials & Process Technical Information System for Device Attachment Control Unit and T-739 RFT Avionics Systems

**CAE Healthcare, Sarasota, Fl June 2013 to September 2013**

Senior Mechanical Engineer

* Completed Mechanical Design, Analysis, and Test of Human Patient Simulator components
* Completed Testing and Design Upgrade of Chest Excursion Mechanical System
* Solidworks 2013 Conceptual, detail design, and GD&T for torso system components and electronics
* Mentoring of engineering department – Geometric Dimensioning and Tolerancing

**Arcadia Aerospace, Punta Gorda, Fl October 2012 to March 2013**

Senior Mechanical Engineer

* Completed mechanical design of welding and support fixtures for aircraft metal and composite material

ultrasonic testing

* Design of motion control systems, motion mechanics articulation for transporting loads, heavy steel fabrication design, precision mechanisms, ball screw design, gear box design, servo motor driven applications
* SolidWorks 2013 3D Concept and 2D Detail Design

**Intertape Polymer Group, Tampa, Fl September 2011 to March 2012**

Senior Mechanical Engineer

* Completed the mechanical design for Industrial Taping Machine and Dual Water Activated Taper
* Completed Case Erector box size range upgrade - Machine modification for wider range of box sizes
* Completed Air Pillow Machine Cart Design
* SolidWorks 2012 3D Concept and 2D Detail Design

**R2 Energy, Inc., Oviedo, Fl January 2011 to July 2011**

Mechanical Engineer/Analyst

* Completed Thermal & Structural Analysis of Full Common Chamber Load/Unload Module System
* CIGS Solar Panel Deposition System
* SolidWorks 2011 Design, Simulation, and Flow Simulation
* Analysis and Design of Complete Cooling Water Flow System

**Zin Technologies, Middleburg Heights, Oh October 2009 to May 2010**

Lead Mechanical Engineer

* Responsible for engineering personnel coordination of design and analysis activities for NASA SLS project
* Completed PATIM Design Review preparation - responsible for establishment of mechanical packaging concept - PWB layout and component placement – Pro Engineer
* Completed Faraday cage design for EMI protection
* Completed System thermal management based on heat balance equation for conduction, convection, radiation – design modification for thermal control
* Complete generation of bill of materials for system mechanical components

**Relevant Experience Prior to 2010**

**Sparton Electronics Inc., De Leon Springs, Fl. March 2008 to October 2008** Senior Mechanical Engineer

**Leslie Controls Inc., Tampa, Fl. May 2007 to February 2008** Senior Mechanical Engineer

**TGV Rockets, Norman, Ok March 2005 to April 2007** Senior Mechanical Engineer /Thermal Analyst

**Honeywell International, Clearwater, Fl March 1998 to January 2002** Senior Mechanical Engineer

**Pulse Electronics, Omaha, Ne September 1996 to September 1997** Senior Mechanical Engineer

**Control Micro Systems, Orlando, Fl July 1995 to July 1996** Design Engineer/Manager

**Lockheed Martin Astro Space, East Windsor, NJ May 1994 to May 1995** Senior Mechanical Engineer

**Northrop Aircraft Division, Hawthorne, Ca February 1990 to February 1991** Senior Mechanical Engineer

**Magnavox Advanced Products & Systems Div, Torrance, Ca April 1989 to November 1989** Sr Mechanical Engineer

**Northrop Electronics Division, Hawthorne, Ca September 1984 to April 1989** Senior Mechanical Engineer

**Singer Kearfott Division, Wayne, NJ June 1982 to September 1984** Mechanical Engineer

**Fully Detailed Resume Available on Request**