

MECHANICAL, ELECTRO-MECHANICAL DESIGNER & DRAFTER CAREER SUMMARY

- Active **SECRET** Clearance [Active until Sept 2010]
- Group supervision and mentor to younger designers/drafters , Project Management, Vendor communication and Selection, Final Check sign-off
- System Integrations & Design, dimensioning, tolerancing, and parts finishes (while considering manufacturing methodologies, reliability and failure analysis) as well as generating fabrication and assembly drawings of components and assemblies using GD&T with tolerance stack analysis per MIL-DLT-31000, ASME Y14.100 and tolerancing per ASME Y14.5, Checking 2D Drawings: Installation, Large & Small Assembly & Part; Interacting and receiving input from Engineers and other Designers; Compliant to company standards, military standards and specifications; Status report writing, Plans, Procedures and Reports on all projects handled; ECN & ECO creation; Generate Bill of Materials necessary to package and deliver
- Large assembly management, family tables, skeleton, shrink wraps and map parts, CNC generated tool path files, parts clearance and interference checks and model integrity checks
- Computer literate in Microsoft products: Word, Excel, PowerPoint, and Outlook, FileMaker Pro, Adobe Photoshop, Dreamweaver
- Effective oral and written communication skills and verbal acuity to clearly communicate with personnel and interact successfully with all levels of an organization. Ability to manage conflicting deadlines, frequent interruptions, and multiple tasks. I possess technical flexibility and willingness to learn. Willingness to travel anytime it may be required.
- 21 years Design of Electro-Mechanical Design: Board-level hardware engineering designer
- Multiple disciplines & industry design/drafting/checking experiences in Scientific/Engineering areas including but not limited to Computer Server products; Military and Commercial equipment: (Aircraft Modifications, Switch Panels & Seat Design, Military Satellites, Helicopters, Heavy Land Vehicles & Unmanned Submersibles (ROV's & POV's), Power Conversion, Telecoms, R&D, Consumer Products & Medical Devices); familiarity with commercial and non-commercial electrical, electronic cables and connectors. Ability to maneuver around equipment in test labs, on board ships and aircraft and manual dexterity sufficient to use keyboards and control panels.
- mechanical design of enclosures (7 years), test fixtures, and detailed Electro-Mechanical electronics packages (11 years) : designing and drafting electronic assemblies, enclosures and electronics packaging (11 years); Environmental testing, electronic system thermal design, modeling for form-factor and thermal evaluation (3 years); Small Plastic & Sheet Metal Mechanisms, Test Fixtures & Jigs (7 years), Hydraulic & Pneumatic Actuators (2 years), Levers and Moving Parts (11 years), Heavy Truck & Chassis Structural Design (5 years), Familiarity with manufacturing processes such as; Weldments, Billet Machining, Sheet Metal Designs (11 years), Plastic Injection Molds, Molded Plastic Parts (3 years), & Die Casting & Forgings Design (2 years); Wire and Tube Routing for Coolant Lines, Fire Suppression Systems, Hydraulics, NBC and Electronic Packaging (3 years)

CAD SOFTWARE HIGHLIGHTS:

PRO/E (releases 13, 2001, WILDFIRE 1.0, WILDFIRE 2.0, WILDFIRE 3.0)
CADKEY
SDRC-IDEAS

SOLIDWORKS
SOLID DESIGNER (HP-ME30/10)
AUTOCAD

PROFESSIONAL HISTORY:

N2 DESIGN, Austin, Texas

2-1997 to Present

Consultants and Contracts: Engineering Design on all CAD platforms, Layout and Drafting, Reverse Engineering Products

SOLIDWORKS:

- ✓ POINT INNOVATION, Austin & Dallas, Texas Senior Design Engineer - Pro Engineer, SOLIDWORKS 10 – Consultant on-site at Customers' locations. Engineering and Design; special projects. E/M packaging.
- ✓ DIAMONDHEAD-USA, Austin, Texas. SOLIDWORKS 8.0. Mechanical Design / Drafter – Low Profile Rifle sights and mounts designs, scopes, scope mounts and other Rifle mounting hardware.
- ✓ FAIRWAY MEDICAL TECHNOLOGIES, Houston, Texas. SOLIDWORKS 8.0 - Mechanical Designer / Drafter - MEDICAL DEVICE R&D COMPANY : Verifying fit, form & function of and production readying all parts for: Production Tools, Automated actuator design, Plastic Parts Design, Injection Molded Parts, Research & Design of medical devices such as: head trauma cool pack, heart monitoring device, Electro-Mechanical packaging sleep apnea device, surgical suturing device, chiropractic tool & Breast cancer research machine

PRO ENGINEER (PRO/E, PRO-E):

- ✓ LOCKHEED MARTIN, Syracuse, New York. PRO/E Wildfire 2.0 & INTRALINK 3.3 – Mechanical / Structural Designer - NAVAL ELECTRONICS & SURVEILLANCE SYSTEMS (NES&S): **Active SECRET Clearance:** MEADS program: US, Germany & Italy joint effort - Heavy Truck Mounted Radar Design & Architecture & Packaging; Pneumatic/Hydraulic Actuated Stabilizing feet design; Tooling & Jigs for equipment placement and assembly
- ✓ LOCKHEED MARTIN, Orlando, Florida. PRO/E 2001 & INTRALINK - Electro-Mechanical Packaging Designer / Drafter - MISSILES & FIRE CONTROL DIVISION: Comanche & Apache Helicopter Projects: designing and drafting electronic assemblies, enclosures and electronics packaging; environmental, thermal design, acoustic, shock, vibration testing of electronic system; modeling for form-factor and thermal evaluation, reliability and failure analysis; Collaborated with Mechanical & Electrical Engineers & Laboratory Technicians to reverse-engineer Electrical & Electronic Systems Testing for aircraft & test equipment of aircraft related systems. Product design of Sheet Metal enclosures, (including Pressure Vessel Junction Boxes, Hydraulic Manifolds) and electronics packaging (Piping & Cabling of Lights, Sensors, Switches, Optical Encoders, PEMS, Fans, heatsinks, PWB's etc.) and all 2D GD&T Drawing Packages & ECO generation

- ✓ LOCKHEED MARTIN, Riviera Beach, Florida. PRO/E 2000i² & INTRALINK - Electro-Mech. Designer - Under-Sea Systems of Perry Technologies & Unmanned Submersibles : Verifying the fit, form and function of: (ROV's & POV's) Underwater Optical, Robotic, Remotely Operated Vehicles; Tether Track alignment (Optical Umbilical Cord) guiding system in/out from vehicle; automatic feed system and tensioning; Electro-Mechanical Components Packaging: designing and drafting electronic assemblies, enclosures and electronics packaging of pcb's, conduction cooled heatsinks and all supplemental parts; acoustic, shock, vibration testing of electronic system with thermal design, modeling for form-factor and thermal evaluation, reliability and failure analysis; RF, EMI/EMC, NEBS, ETSI Rack & Stack Consoles or Panels (control panels for ROV or ROP), ensuring the integration and designs meet Environmental and Human Factors requirements, Product design of Small Mechanisms, Hydraulic Actuation/Actuating Parts Design, Gears, Rollers, Chain Drives, Sheet Metal enclosures (including Pressure Vessel Junction Boxes, Hydraulic Manifolds) and electronics packaging (Piping & Cabling of Lights, Sensors, Switches, Optical Encoders, PEMS, Fans, PWB's etc.), all 2D GD&T Drawings
- ✓ LOCKHEED MARTIN, Syracuse, New York. PRO/E 20 & PDM - Electro-Mechanical Designer - NAVAL ELECTRONICS & SURVEILLANCE SYSTEMS (NES&S): Ocean, Radar & Sensors Div. : Mentored engineers on ProE to achieve a joint problem solutions on advanced complex tasks at component or subsystem level: designing and drafting electronic assemblies, enclosures and electronics packaging of pcb's, conduction cooled heatsinks and all supplemental parts; environmental testing, electronic system thermal design, modeling for form-factor and thermal evaluation; (E/M Packaging) Sonar Compliant RF Modulated Inter-cooled Integration of Rack & Stack Panel Design (Submarine Use) (10g load, inner-cooled system with cold plate radiators (non-fanned cooling)) PCB's & Back planes, board level micro-electronics, connectors & components; Sheetmetal substructures design & 2D GD&T Drawing Packages for Universally Sold Radar System & Decoy Project; SDRC Conversion
- ✓ GENERAL DYNAMICS, Woodbridge, Virginia. PRO/E Mechanical Designer. Advanced Amphibious Assault Vehicle) Engine IPT: Plastic and Sheet Metal Design: Brackets & Parts for sub systems. Performing Modular Integration, Mechanical Packaging & Design; Design for Manufacturing Practices; Tolerance and Failure Analysis; using DOD-STDs, Mil specs, GD&T; 2D Drawing Packages; APU Packaging (Auxiliary Power Unit): Pro-Piping/Line Routing: Engine Coolant System & Fire Suppression System
- ✓ GENERAL DYNAMICS Robotics Systems, Westminster, Maryland. PRO/E Wildfire 3.0 & Windchill 8 & AutoCAD - Electro-Mechanical Designer / Drafter, AUTONOMOUS NAVIGATION SYSTEMS : production readying tools, machine & sheet metal part drawings and all documentation with GD&T & current format per standards & military specifications; PCB drawings and schematics for MIL ruggedized chassis, pcb's, conduction cooled heatsinks and all supplemental parts
- ✓ GENERAL DYNAMICS, Woodbridge, Virginia. PRO/E 2000i² & INTRALINK - Electro-Mechanical Designer / Drafter - LAND SYSTEMS DIVISION - Advanced Amphibious Assault Vehicle (AAAV) First ever Heavy Military Land Vehicles joint Marine Corps and Civilian Design Effort. Pro-Piping, Design for Manufacturing Practices & 2D GD&T Drawing Packages using DOD-STD 100D, Mil specs, ASME Y14.100, ASME Y14.5M-1994&1982. Auxiliary IPT: Pro-Piping / Line Routings: Hydraulics & Fire Suppression System, Manual Pull Cables, NBC, ECS, SHS Systems & Mechanical Sheet Metal Design: Mechanisms, Linkages, support Brackets, ensuring the integration and designs meet Environmental and Human Factors requirements for acoustic, shock, vibration testing and reliability and failure analysis of MIL ruggedized chassis'; Hydraulic Actuation of Front/Rear Skids
- ✓ SPIRENT COMMUNICATIONS, HEKIMIAN DIVISION, Rockville, Maryland. PRO/E 2000i & PDM - Electro-Mechanical Designer / Drafter - Telecomm Access & Testing Equipment Sold to Phone Service Providers : NEBS & ETSI compliant, EMI containment, Modular Integration & Design of 19" and 23" Rack & Stack DSL (Digital Subscriber Line) Electronic & Mechanical Packaging Panel Design Test Systems per RF, EMI, NEBS, ETSI, GR10-89, GR63 codes in Cards, PCB's, PWB's & Back planes, board level micro-electronics, connectors & components, heatsinks; Sheet Metal Housings, Circuit Card Design, Plastic and Sheet Metal design; 3 New Products Designed & 2D full-up Drawing Packages (level 3); reliability and failure analysis checks during environmental testing
- ✓ STEELCASE, INC., C.D.C., Grand Rapids, Michigan. PRO/E 18 & PDM - Mechanical Designer / Drafter - Office Furniture and Modular Office Systems: Sheet metal brackets, Plastic parts design & Table Top Castings. Design for Manufacturing; full GD&T on all drawing packages
- ✓ DELL COMPUTERS, Round Rock, Texas. PRO/E Wildfire 3.0 & Windchill 8 - Electro-Mechanical Designer / Drafter - BUSINESS CLASS ENTERPRISE BLADE SERVERS: Verifying fit, form & function of Injection molded plastic computer parts, sheet metal housings, heatsinks and 2D GD&T documentation packages for the Hardware Engineering team designing and drafting electronic assemblies, enclosures and electronics packaging of electronic system design, modeling, and form-factor for thermal evaluation.
- ✓ ACCRETECH, Austin, Texas. PRO/E Wildfire 2.0 & INTRALINK 3.3 - Electro-Mechanical Designer / Drafter - SEMI-CONDUCTOR BUSINESS: Verifying the fit, form and function and Packaging of Clean room compatible machine part designs incorporated into a newly designed first time ever pneumatic actuator driven wafer inspection station, Sheet metal housed cabinet to be a desktop version and later re-designed to go at the end of the "making of an integrated circuit" machine
- ✓ MOTOROLA, Fort Worth, Texas. PRO/E Wildfire 2.0 & INTRALINK - Electro-Mech Packaging / Designer / Drafter - CELLULAR BASE STATION/TOWER COMM. EQUIP. Designing and drafting electronic assemblies, heatsinks, adhesives and thermal interface materials, enclosures and electronics packaging; electronic system thermal design, acoustic, shock, vibration testing of, modeling, form-factor for thermal evaluation; Verifying the fit, form and function of a 6-Sigma required, Rack Mount equipment design, layout & packaging of a (16) multi-layer high-speed bussed PWB/Backplane, circuit card design and Library elements database capture, and E-M Packaging. EE and ME team Interface and collaboration to define over 8000 E-M Packaged elements; ECAD interface using Mentor Graphics (multiple iterations). Die Cast Aluminum Heat Sink Design for same board, sheet metal brackets; EMI/RFI and safety compliant; documentation packages with GD&T for XMI KDDI (Japanese customer)

- ✓ CISCO SYSTEMS, INC., Austin, Texas. PRO/E 2000i² & INTRALINK Admin, AutoCAD, SDRC - Electro-Mechanical Designer / Drafter - Router, Telecommunications & DSL Equipment Provide Electronic/Electrical Packaging: Delivering RF, EMI, NEBS, ETSI, GR10-89, GR63 compliant design of high-speed bus Telecomm & Internet Solutions/Service provider access market; Design for Mfg Practices & 2D Drawing Packages; ProE Mentor to Student on DSL R&D Mechanical Team. Designing and drafting of electronic assemblies, enclosures and electronics packaging; environmental testing, electronic systems thermal design, acoustic, shock, vibration testing of, modeling, and form-factor for thermal evaluation, reliability and failure analysis; Rack & Stack panels: DSL; PCB's & Back planes, board level micro-electronics, connectors & components; Sheet Metal Housings & Enclosures, Circuit Card Design (Board component placement and layout) and Rack/Panel Modular Integration Design (Sheet metal chassis enclosure designs and E/M Packaging: 19" & 23" Rack & Stack DSL (Digital Subscriber Line) Panel Design) as well as environmental, shock and vibrate testing conditions; EMI shielding and containment in Fan Trays (forced-air cooling fan system design); Map/Skeleton Parts & Layout, Large Assembly Structure & Design of cabinets and chassis; ECO generation per company S.O.P.; minor ECO fixes utilizing SDRC
- ✓ GENERAL ELECTRIC ENERGY, Houston, Texas. AutoCAD Quality Engineer Checker, TURBINE ENGINE POWER GENERATION PLANTS – TOOL & Packaging drawings and documentation with GD&T
- ✓ EATON AEROSPACE, Costa Mesa, California. PRO/E Wildfire 3.0. Electro-Mechanical Design of Switch Panel Assemblies for the CH-53k Sikorsky Helicopter, Drafting & Detailing all machined components; Model integrity checks of all assemblies and fixes for 100+ drawings in preparation for CDR within 6 weeks of start.
- ✓ BAE SYSTEMS, Santa Clara, California. PRO/E Wildfire 2.0 & INTRALINK 3.3 - Vehicle Packaging Architect & Systems Integration Engineer - HEAVY MILITARY LAND VEHICLES: Vehicle Packaging Architect for next generation military land vehicles: Packaging/Layout of Vehicle Systems for the Infantry Carrier IPT
- ✓ JAMCO AMERICA, Everett, Washington. PRO/E Wildfire 2.0 & INTRALINK 3.3 - Electro-Mechanical Designer / Drafter - AIRCRAFT MODIFICATION COMPANY: Verifying the fit, form and function of Electrical Systems Packaging & Mechanical Packaging of aircraft components; A service provider of design for Boeing including: 747 VIP aircraft for (JAG) Japanese Government (like Air Force One) a Commercial aircraft interior structural reconfiguration and modifications project including: tools, fixtures and jigs for intercostals; floor panel design, machine parts and additional seat tracks installation, Installation tooling, Floor panel modifications, Lavatory and other monument installation & placement, package documentation per specs, standards & with GD&T. (Research using BOEING engineering (my Boeing fleet), Matrix One, Part lists, top Collector drawings). (B787) Boeing 787 Dream Liner: Mechanical design and detailing for the design of B787 Bulkhead & Flight Deck Door Project: structure and interior components including: bulkhead design: all large assembly top level drawings, machine parts, door post components, dead bolt and ballistic blankets and many other bulkhead components, all 2D GD&T documentation packages
- ✓ RAYTHEON, Santa Barbara, California. PRO/E 2001 & INTRALINK – Electro Optical Mech. Designer / Drafter / Checker - SPACE & AIRBORNE REMOTE SENSING DIVISION: Military Satellites, JAMI & VIIRS Projects: Modular Integrations of Remote Satellites and Sensing Equipment: Opto-Mechanical, Electronics, Systems and Ground Support Equipment (GSE) EDU and Production Design and 2D GD&T Drawings Packages: Honeycomb Structures & Panels, Optical Lens Mounts and Latch Assembly J-Box Design. Design for Manufacturing Practices to DOD-STD 100D, Mil specs, ASME Y14.100, and GD&T per ASME Y14.5M-1994 & 1982 standards with Tolerance and Failure Analysis studies of MDD (Minimally Dimensioned Drawings), ECO's & Specifications per company S.O.P. and Sherpa PDM release approving cycle (checking completed layouts, models, drawings for clarity, completeness, conformity to military contracts, standards, procedures, specifications, and all company standards and procedures as well as accuracy of calculations and dimensioning by, verifying the fit, form and function of all electrical, optical and/or mechanical designs; likewise identifying design errors, omissions, and other deficiencies, and recommending revision and/or improvements in design layout to the responsible engineers and/or designers) data management with FileMaker Pro

COLUMBIA INDUSTRIES , San Antonio, Texas		8-1992 to 2-1997 (Direct)
Product/Tools Designer / Drafter - HP-ME30/10	Additional info on request	
SUNBEAM - OSTER		1-1991 to 7-1992 (Direct)
Product Designer / Drafter - HP-ME30/10, AutoCAD 10, CADkey	Additional info on request	
CATAPHOTE, INC.		7-1989 to 1-1991 (Direct)
Designer / Draftsman - AutoCAD 9.0	Additional info on request	
SCIENTIFIC INDUSTRIAL DEVELOPMENT, INC. (S.I.D. Inc.)		6-1988 to 7-1989 (Direct)
Draftsman - AutoCAD 2.52- AutoCAD 9.0	Additional info on request	
MARK SHARP & ASSOCIATES		5-1988 to 9-1988 (Direct)
Architectural / Subdivision Draftsman - Board Drafting	Additional info on request	

EDUCATION:

BSME – Equivalent: Engineering degree has not been completed yet. It is my desire to eventually finish.

GD&T Certification 1998 in "Fundamentals of GD&T" and "How to Measure GD&T"

PTC Certified Training 1997 ProE Large Assembly Maintenance, ProE Sheet Metal

University of Kentucky 1996 Mechanical Engineering Studies

PTC Certified Training Center 1996 ProE Advanced Assembly & Design

PTC Certified Training Center 1995 ProE Basic Design

HP Training Center, Seattle, WA HP-ME30 Solid Modeler Course

Hinds Community College 1988 AAS Degree Computer Aided Drafting & Design

Holmes Community College 1986 AAS Degree Computer Technology with Emphasis in Data Processing

Search Words: Pro Engineer, Pro E, Proe, Pro/E, ProE, Proe, proe, pro-e, Pro-E, Solidworks, Solid Works, Autocad