

David L. Dummer M.S., P.E.

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PROFESSIONAL OBJECTIVES

To find a mechanical engineering opportunity that challenges me, and gives me a sense of passion about my activities. I am most passionate about developing products that function properly, and provide the customer the results they expect. My intent is to give the customer a level of confidence much like they would feel while driving a car with a clear windshield, and not operating blindly in a submarine. My desire is to find a challenging career opportunity in the Energy, Aerospace, or Medical development fields.

EDUCATION

- Masters of Science in Mechanical Engineering, Colorado State University, 2007. Thesis on advanced statistical modeling of electrical properties of materials. Classroom concentration in Thermal and Materials topics. GPA 4.0.
- Bachelor of Science in Mechanical Engineering, Colorado State University, 1990. Classroom concentration in Thermal and Materials topics. GPA 3.14.

CERTIFICATION

- Registered Professional Mechanical Engineer in good standing with the State of Colorado, License #31268 awarded July 1996.
- Security Clearance – NSA issued, inactive

EXPERIENCE

- In-Situ Inc, Fort Collins, Colorado 10/2005 – 5/2007
Mechanical Engineer responsible for production engineering activities starting from product conception through service support.
 - New product introduction engineer that contributed to the successful release of new products. Evaluated product release readiness of product concepts, prototypes, and production processes. Feedback from evaluation reduced risks of schedule changes.
 - Led value engineering redesign and new vendor selection efforts that reduced costs during 2006. Reduced component costs \$541k compared to the \$300k target.
 - Product engineering support of production that directly contributed to improving the 2006 on-time delivery metric from below 80% to above 90%. Generated work instructions and maintained tooling and equipment.
- RR Donnelley, Greeley Colorado 7/2003 – 10/2005
Mechanical Engineer responsible for the reduction and elimination of repetitive equipment and process failures.
 - Planned & coordinated a \$190K plant wide lighting upgrade to reduce power consumption and yearly operating cost, while matching pre-upgrade light levels.
 - Project Coordinator on the installation and system debugging for two 490-ton chillers to provide reliable plant-wide chilled water.
 - Determined the root cause and developed and executed corrective actions that solved a repetitive splice efficiency problem, bring the efficiency from 96% up to the targeted 99.5%. This included the use of tools such as Failure Modes & Effects Analysis, Maintenance Corrective Action Reports, and Engineering Evaluations.
 - Determined the key contributing factors to a palletizing robots poor performance. Implemented corrective actions to eliminate those repetitive failures, which reduced downtime costs estimated at \$1K/hr.
- Agilent Technologies/Hewlett-Packard, Loveland, Colorado 2/2001 – 11/2002
R&D Mechanical Engineer responsible for advanced test fixture design (patented technology).
 - Test engineer that validated mechanical PCBA changes. Implemented & validated advanced electronic component usage with mechanical redesign & vibration testing.
 - Design validation through development of numerous 3D finite element models. Evaluation of deflection characteristics for mechanical assemblies against criteria.
 - Completed detailed mechanical design and development of test fixture hardware and PCB packaging, resulting in production prototype & product documentation.
 - Custom fixture data manipulation improved with knowledge of software programming. Cross-functional initiative displayed through PERL script development.

- Colorado State University, Fort Collins, Colorado 8/1997 – 2/2001
Mechanical Engineering Laboratory Manager responsible for teaching resources.
 - Coordinated resources & relocation of teaching laboratories during transition into new facilities. This maintained the maximum uptime for teaching activities by keeping resources available.
 - Instructed student on data acquisition applications during the senior design class.
 - Developed scripting tools and sw installation standards to automate the maintenance of 14 computers. This increased usability and reduce downtime impact on students.
- Maxtor Corporation, Longmont, Colorado 4/1996 – 8/1997
Mechanical Reliability Engineer responsible for all operation Shock & Vibration testing of disk drive products.
 - Hands-on execution of operational and non-operational shock & vibration tests.
 - Calculated Weibull statistical reliability of products based on testing data and reports results to R&D. Results improved performance of existing and developing products.
 - Redesigned operations & information processing techniques. Streamlined completion of tests, reliability of data analysis, and delivery of reports containing conclusions. The average time required to completed critical tests was reduced by 30%.
- Naval Surface Warfare Center, Bethesda, Maryland 01/1991 –03/1996
Mechanical Test Engineer responsible for radio controlled model submarine emergency evasive maneuvering testing & reports. Submarine Dynamics Branch. 1994 - 1996
 - Completed test plan and analysis of data.
 - Improved the efficiency of test setups and data collection procedures.
 - Engineered and completed system modifications, setup, debug, and maintenance of tests.
 Mechanical Design Engineer responsible for innovative design and testing of pollution abatement processes and equipment. Pollution Abatement Branch. 1991-1994
 - Developed several thermal models used to improved thermal characterization and processing mechanism for waste materials.
 - Developed & organized a Navy shipboard solid waste characterization project. This allowed for a more effective implementation of the Navy's \$850M waste minimization program.
 - Managed a cross-functional team tasked with a system feasibility study and the development the constraints & criteria for a working waste aerosol container processor. Developed a working prototype. The results of the study eliminated a costly implementation program, and 90% savings of development budget.
- Martin Marietta/LMCO, Denver Colorado 05/1989 – 08/1989
Design Engineering Group, Propulsion Common Support.

HONORS

- Inducted member of Phi Kappa Phi – National All-Discipline Honors Society, and Pi Tau Sigma - National Mechanical Engineering Honors Society.
- Co-inventor of two U.S. Patents (US Navy - #5,967,012, Agilent - #6,828,773).
- Certificate of Special Act or Service, and three Certificates of Achievement for Exemplary Performance and Service to the Carderock Division Naval Surface Warfare Center.
- Letter of appreciation RDT&E Program Manager, Naval Sea Systems Command
- United States Citizen
- American Society of Mechanical Engineers – ASME, Centennial Section Officer – 2004 Secretary, 2005 Vice Chair, 5th year as Web and Email Administrator.

PROFESSIONAL INVOLVEMENT

BUSINESS & ENGINEERING TOOLS

Experienced with the following business & engineering tools:

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| • Microsoft Office Suite 2003 (adv. user) | • MathCAD |
| • Microsoft Project | • PERL scripting. |
| • CoCreate OneSpace 2007 | • High Speed Video Cameras |
| • Pro/Mechanica FEA | • LabView DAQ |
| • MATLAB Programming & Modeling | • SolidWorks |