Curriculum Vitae
DAVID GARSIDE SMITH

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EDUCATION

- 2011: M.S. Mechanical Engineering, BYU, Provo, UT
  - Thesis: Off-axis Stiffness and Piezoresistive Sensing in Large-displacement Linear-motion MEMS
- 2011: MBA, BYU Marriot School of Management, Provo, UT
- 2007: B.S. Mechanical Engineering, BYUI, Rexburg, ID
  - Cum Laude Graduate
- 2002: Diploma Lone Peak High School
  - High Honor Roll

EXPERIENCE

2010-Present Consulting Engineer
Performed market research. Planned and quoted projects. Wrote multiple patent applications. Designed and analyzed numerous new and current products including end dump trailers, side dump trailers, pneumatic trailers, tarping systems, insulated aerial lifts, automated refuse trucks, refuse truck safety systems, material handling equipment, patient moving systems, and numerous custom testing devices.

2010 Product Development Intern, BD Medical
Created and validated new test method for components of an IV Catheter. Applied Design Structure Matrix methodology to a complex development project.

2008-2009 Research Assistant, Compliant Mechanisms Research Lab
Designed multiple theoretical and physical MEMS devices. Combined finite element analysis with a genetic algorithm optimization in the development process. Tested and analyzed numerous MEMS devices and compared actual results with analytical predictions.

2008 Engineering Technician, Merit Medical Systems
Trouble shooting and diagnosing problems on semi-automated and fully-automated production lines. Designed lean manufacturing cells/work stations.

CERTIFICATION AND LICENSURE

- Registered Professional Engineer in the state of Utah.
- Design Certified Engineer for Cargo Tanks.
- Certified forklift operator trainer.
- Certified in CPR, first aid, and AED.

PUBLICATIONS

- Author: Off-axis Stiffness and Piezoresistive Sensing in Large-displacement Linear-motion MEMS
- Co-Author: Piezoresistive Encoders for Ratcheting Actuation Systems
- Co-Author: Design Optimization of a Linear-motion Large-displacement Micro Mechanism for High Off-axis Stiffness
- Co-Author: Metrics for Evaluation and Design of Large-displacement Linear-motion Compliant Mechanisms