Luke A. Hacker
New Prague, Minnesota
(612) 418-8837 lahacker@gmail.com

Objective Desire to use my creativity, analytical and engineering skills to help people in practical ways. Desire to help make this world a better place, especially for those people subjected to poverty and environmental degradation.

Education

University of Minnesota, Twin Cities
Master of Science in Mechanical Engineering GPA: 3.951, 2005 - 2011

University of St. Thomas, St. Paul, Minnesota
Bachelor of Science in Mechanical Engineering GPA 3.75, 2001 - 2005, Magna Cum Laude

Professional Experience

President
Simply Love, Haiti (non-profit organization), New Prague, MN April 2013 – present
- Support agricultural and educational development in the central plateau region of Haiti, near Pignon
- Provide school supplies for school children and funding for college students; tools, seeds, and training for impoverished farmers

Framer/Carpenter
Jeff Allen Construction, New Prague, MN May 2014 – present
- Frame residential homes in the south Twin Cities metro area
- Responsibilities include creating staircases and front porches to customer blueprints and building codes

Mechanical Design Engineer
Scott Equipment Co., New Prague, MN Sept 2010 – May 2014
- Lead structural engineer; performed analyses on large rotating high-speed equipment using FEA /hand calculations
- Designed custom equipment and tooling for manufacture using 3-D CAD software
- Organized and lead failure investigation(s) both internally and at customer sites in the USA and England, leading to major improvements in legacy products and engagement with new suppliers.

Mechanical Design Engineer
Remmele Engineering, Inc., Big Lake, MN June 2005 – May 2010
- Lead structural/fluid flow engineer; performed structural analyses on customer assemblies and internal tooling using FEA software and hand calculations, planned and conducted structural and fluid flow experiments
- Designed aircraft and radar components and tooling for manufacture using 3-D CAD software
- Performed experiments for evaluating manufacturing parameters to improve product quality and throughput, including the use of innovative techniques. Evaluated effects of thermal operating parameters.

Project Leader - Senior Design Project
University of St. Thomas, St. Paul, MN September 2004 – May 2005
- Designed a compressed-air-powered motor for Graco, Inc., Minneapolis, MN, using structural/fluid flow analysis
- Fabricated a fully-functional prototype, performed experiments to evaluate performance

Research Assistant – Univ. of St. Thomas, St. Paul, MN June 2004 – June 2005

Block Tender/ Laborer – Albrecht Masonry, Jordan, MN Summers 1998 – 2003

Other Activities:
- Organic Gardener • Church youth leader, 2007 – 2015 • 2004 ASME competition; created minesweeping robot

Computer Skills *SolidWorks* CAD Program, *Ansys* FEA Program, *Matlab, Microsoft* Excel, Word, and PowerPoint

Publications *Dynamic 3D Visualization of Stress Tensors* (co-author: Michael P. Hennessey, Ph. D.)
Presented at 2006 American Society for Engineering Education Annual Conference

References

Eph M. Sparrow, Professor of Mechanical Engineering, University of Minnesota
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Jeff A. McLaughlin, Owner, Jeff Allen Construction *Phone:* (952) 374-9302