John W. Henderson

Education

May 2007 | **Bachelor of Science in Mechanical Engineering**
The University of St. Thomas · St. Paul, MN
Magna Cum Laude · 3.74 GPA

Work Experience

09/2008 – Present | **Process Engineer**
3M Company (CRPL) · Maplewood, MN

- Developed a novel modification to an existing nonwoven manufacturing process, and initiated and led the resultant NTI (currently in Explore)
- Discovered conditions for applying a low viscosity compound via traditional processing means, enabling launch feasibility for a PCD NPI (currently in Scale Up)
- Re-engineered a non-functioning ethanol processing technique, which led to an Invention Submission and pilot plant trial plans
- Acquired a substantial network of colleagues through active involvement in Tech Forum, brainstorming sessions, and personal development opportunities

11/2006 – 08/2008 | **Design Engineer**
Futurestar Corporation · Bloomington, MN

- Influenced product design direction via computational fluid analyses and innovative CAD design prototypes
- Optimized product assembly robustness and thermal characteristics, leading to implementation of these innovations in the current product line

08/2007 – 08/2008 | **Event Administrator**
Saint Paul's Outreach · West St. Paul, MN

- Coordinated registration, lodging, food, materials, room reservations, and all participant communications for a two-week conference of 120 attendees
- Served as primary liaison between Saint Paul's Outreach and outside entities, such as The University of St. Thomas, to secure necessary resources for large events

01/2005 – 01/2007 | **Intern**
Alliant Techsystems · Plymouth, MN

- Assisted all stages of product design by creating CAD models, engineering plots, and tolerance validation of pre-production assembly drawings
- Developed a Java program to automate data extraction from test log files to replace the existing manual process, increasing efficiency by at least ten fold

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Acquired Skills

- Considerable CAD solid modeling and drafting ability with Unigraphics NX, Pro/E Wildfire, SolidWorks, and Audodesk Inventor
- Finite element analysis experience with mechanical, fluid flow, and heat transfer simulations using ANSYS and CFDesign
- Moderate coding ability with Java and Visual Basic; beginner level knowledge of Perl, Python, and Bash languages
- Competence with manual machining mill and metal lathe

3M Invention Submissions

07/06/2011	N012345, *Something Really, Really Neat*; Einstein A, **Henderson JW**, Bell, AB.
09/22/2010	N032357, *Cold Fusion*; **Henderson JW**, Doe JA, Cool J.
09/22/2010	N031665, *Method of Growing Money from Trees*; **Henderson JW**, Friendly AI.

3M InTek Reports

2011	3M 2011-0894, *Project Poster* (2011 Tech Forum Spring Symposium); **Henderson JW**, Other P.
2010	3M 2010-1820, *Experimental Trial Summary for So and So*; **Henderson JW**, Smith J, Peterson A.
2010	3M 2010-0116, *Another Report*; Someone Z, Another Y, **Henderson JW**, Yetanother W.

Volunteer Positions

01/2011 – Present	Nonwoven Tech Forum Chapter Chair
02/2010 – Present	Certified 3M Emergency Response Team Member and CPR Administrator
01/2011 – Present	Buildings 208/218/219 Safety Chair
01/2010 – 12/2010	CRPL Nonwovens Cluster Safety Representative

Presentations

04/28/2011	*Presentation on the Project Everyone Cares About*, CRPL Nonwovens, Membranes, and Ultrasonics TechConnect Event.
11/09/2010	*Proposal for Initiation of New Super Invention*, CRPL Portfolio Review.

Awards & Nominations

2009	Circle of Technical Excellence & Innovation (CTE&I) nomination for work on Renewable Energy Division Project.
2009	Discover Grant, *Please Give us Money for a Neat Project* (2009-0046); Smith J, Anderson J, **Henderson JW**.

Hobbies & Interests

- Automobile repair: brake pads and rotors, timing belt, water pump, header pipe, shocks and struts, sway bar linkages
- Rebuilding/repairing mechanical systems: road bicycles, power tools
- Rough and fine Woodworking
- Hobby machining projects
- Home improvement/repair
- Learning computer programming languages and writing code
- Task/note organization, data visualization, and report generation using gnuplot, Emacs Org-mode, LaTeX and Ti*k*Z