

PAUL DONALD GESSLER

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EDUCATION

Marquette University, Milwaukee, Wisconsin

Master of Science, [Mechanical Engineering](#)

2012 – 2014

- Cumulative GPA: 3.50; Specialization: [Energy Systems](#)
- Thesis: One-Dimensional Model of a Refrigeration Cycle Compressor Test Block
- Teaching Assistant for Controls, Fluid Mechanics, and Thermodynamics Courses

Milwaukee School of Engineering, Milwaukee, Wisconsin

Bachelor of Science, [Mechanical Engineering](#)

2008 – 2012

- Cumulative GPA: 3.56; Mathematics Minor
- Senior Project: [Modeling of Pulsed Jet Impingement on Brittle Materials](#)

SOFTWARE PROFICIENCIES

SolidWorks, MATLAB/Simulink, C/C++, ANSYS (APDL, Fluent, Workbench), STAR-CCM+, eQUEST, Engineering Equation Solver, REFPROP, Adobe Creative Suite, Microsoft Office Suite, \LaTeX

HONORS AND AWARDS

Outstanding Student Chapter Award, SAE International, Detroit, MI

2011, 2012

Outstanding Collegiate Chapter, SAE Milwaukee Section, Milwaukee, WI

2011

First Place, Design Report Competition, SAE Supermileage, Marshall, MI

2011

Dean's List, MSOE, Milwaukee, WI

2008 – 2012

PUBLICATIONS

Prantil, V.C., Papadopoulos, C., **Gessler, P.D.** (2013). *[Lying By Approximation: The Truth about Finite Element Analysis](#)*. Morgan & Claypool Publishers.

PROFESSIONAL EXPERIENCE

Johnson Controls, Inc., Milwaukee, WI

Graduate Intern, Control Applications and Advanced Algorithms

2010 – 2012

- Designed, implemented, and tested 30 warning events for chiller control software
- Planned and led automated regression testing of controls performance and 210 safety events
- Improved automated testing speed in Excel/MATLAB/Simulink (simulation and emulation) by 15%
- Created and distributed release notes documenting new features, enhancements, and known issues
- Extended numerical chiller models to include two more vessel configurations and enhanced stall

LEADERSHIP EXPERIENCE

MSOE Society of Automotive Engineers, Milwaukee, WI

Chairman

2011 – 2012

- Oversaw the general operation of the 150-member MSOE Student Chapter
- Coordinated with professionals and students in nearby SAE Chapters to organize monthly events
- Other Previous Positions: Program Coordinator and Webmaster (2010 – 2011)

Technical Lead, Supermileage Vehicle Steering Team

2010 – 2011

- Designed, analyzed, manufactured, and tested suspension frame
- Responsible for steering/brake system overall performance and component integration
- Provided weekly progress reports to Project Manager and other team leaders
- Co-authored and edited the [Design Report](#) (awarded First Place, Design Report Competition)

MSOE Residence Life, Milwaukee, WI

Resident Assistant

2010 – 2012

- Provided academic, personal, and professional advice for 35 students
- Planned and promoted events for residents, such as résumé workshops and indoor rock climbing
- Enforced MSOE Residence Life policies, resolving roommate conflicts and violations as needed

ACTIVITIES AND INTERESTS

Member ASHRAE (2012 – present), Varsity Lightweight Crew 2008 – 2010, Cyclocross, Running, Backpacking, Photography, Trumpet Performance, Web Design