

Michael Woon

University

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Objective Obtain a summer internship upon graduation that requires the understanding of energy conversion, heat transfer, fluids, mechanics, and controls to design efficient systems.

Education **Michigan Technological University** Houghton, Michigan
B.S. Mechanical Engineering (*May, 2008*)
GPA **3.89** 104.5 Credits

General Motors Corp. Milford, Michigan (*Summer 2007 and 2006*)

Powertrain – Manual Transmission Development

- Demonstrated in 8 weeks a transmission with improved shift quality through root-cause analysis, data interpretation, component design, and fabrication of proof-of-concept
- Modeled clutch system performance in math-based modeling with GM Europe collaboration
- Championed design optimization program that reduces clutch development effort and time
- Provided validation results for a developing simulation program of clutch pedal forces

Cummins Inc. Columbus, Indiana (*Summer 2005*)

High Horsepower – Tech Center

- Project management of transient response dyno test initiative and test cell hydraulics
- Developed understanding of diesel combustion and performance

Michigan Technological University Houghton, Michigan (*Aug 2005-Dec 2006*)

Academic Mentor and Teaching Assistant

- Prepared lectures and taught class fundamentals for being successful in college
- Study group leader and mentor to first-year college students

Organic Farm Houghton, Michigan (*Apr 2005-May 2007*)

Agricultural Laborer

- Tractor hydraulic repair, crop tending, agricultural landscaping, and cider production

Projects **HD Diesel Engine Lab** Michigan Technological University (*Jan 2007-May 2007*)

- Designed and built a laboratory grade ejector diluter for emissions data collection
- Initiated a new dilution ratio calibration technique using CO as a calibration gas
- Successfully completed undergraduate research project and technical report

Challenge X Michigan Technological University (*Aug 2005-present*)

- Helped build, calibrate, and validate a math based vehicle model for controls implementation
- Presented the Vehicle Technical Presentation to GM, DOE with the Team Leader
- 3-year member of international hybrid vehicle competition sponsored by GM and DOE

Technical Training

- Matlab/Simulink Beginning Model Based Design – Challenge X, MathWorks (*Fall 2007*)
- IC Engines Technical Elective – Michigan Tech Prof., Houghton, MI (*Fall 2007*)
- Fuel Cell Technology Course – Michigan Tech Prof., Houghton, MI (*Fall 2007*)

Awards

Certificate of Tribute
Personally awarded by Gov. Jennifer M. Granholm for mentoring and leading college students

Balanced Man Scholarship

Fraternity sponsored scholarship awarded for outstanding leadership, service, activities, and character

Ayumi Yoshazawa Award

Highest award in nationally renowned marching band for leadership