

Michael Ruof

Graduation Year: Junior

College: Engineering

Major(s): Mechanical Engineering

Minors(s): Engineering Corporate Practices

Scholar Group Membership: No

Did you received other funding for this project?: The College of Engineering

Could you have completed this project without CUSE funding? No

More details on CUSE funding assistance?

Project Title: OPTIMIZING ICE EFFICIENCY THROUGH CYCLING

Project Location: Montreal, Canada

ND Faculty Mentor: Peter Bauer

Project Type: Research, Conference - Presentation

Why did you undertake this project/experience? Deepen your knowledge of a topic or issue, Prepare for graduate school (MA or PhD), Prepare for professional school (MD, MBA, JD), Internationalize your Notre Dame experience

Did your funded experience help you:

[Deepen your understanding of your coursework or field of study]: Very Much

[Discern your interests and post-bac goals]: Very Much

[Become confident in your ability to set and achieve your goals]: Very Much

[Gain a more nuanced view of local, national, or global communities]: Very Much

[Improve your written and verbal communications skills]:Very Much

Tell us about your experience.

Our research was on optimizing fuel efficiency of large diesel engines and how to hybridize large diesel engines. In our research we found where it is best to cycle for two power points and the benefits of cycling diesel engines.

We spent our second semester of our sophomore year researching this topic, and then spent our junior year refining our research and submitting it to conferences.

At the conference we were able to attain more background on the research on fuel efficient techniques and fuel efficient vehicles. It allowed me to see where the industry is going and what the future entails. I was also able to connect and network with other professors and industry leading engineers.

Describe the impact this project had, both on you as a student-scholar and on the people you worked with.

The project impact on myself is that it pushed me to stretch my imagination and challenge me in ways that my engineering classes couldn't in that it required me to use critical, creative, and analytical thinking together in a way I have never used it before. It also showed me the type of skill and work that is needed to create industry changing technology in the future. I was also

