

Matthew Colturi

**Graduation Year:** Senior

**College:** Engineering

**Major(s):** Civil Engineering

**Minors(s):** Energy Studies

**Scholar Group Membership:** none

**Did you received other funding for this project?:** No

**Could you have completed this project without CUSE funding?** No

**More details on CUSE funding assistance?** My total expenses of around \$1000 from the conference exceeded the \$500 funding limit. While I had sufficient savings to cover the excess expense, without the grant from CUSE I would not have participated in the conference given the high expense of airplane tickets and hotel lodging in Los Angeles.

**Project Title:** Greenbuild 2016 International Conference and Expo

**Project Location:** Los Angeles Convention Center, Los Angeles, California

**ND Faculty Mentor:** Dr. Alexandros Taflanidis

**Project Type:** Conference - Attendance

**Why did you undertake this project/experience?** Deepen your knowledge of a topic or issue, Research/experience necessary for senior thesis or capstone project, Career discernment and/or preparation

**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]:** Not Applicable

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

**Tell us about your experience.**

As a Greenbuild volunteer, I was required to work two 4-hour shifts over the course of the three day conference. I assisted in setting up materials and presentation spaces, directed conference attendees around the convention center, and participated in the waste diversion program by promoting recycling and composting of nearly all materials at Greenbuild. During my volunteer shifts I met other students from around the country, and professionals in attendance involved in a variety of different fields. Learning about their own education and career paths helped me understand how different industries contribute to the green building movement.

When I wasn't volunteering, I was free to attend any conference presentations. Out of the hundreds of talks offered, I chose to attend the ones that most related to my studies. These topics include energy modeling throughout the design process, applying energy codes to building projects, residential design, and understanding how the LEED rating system works. Through these presentations, I reflected on the role I play as a civil or structural engineer who has the

responsibility to incorporate sustainability into building projects.

Another major event at Greenbuild was the expo. The expo hall was a gathering space for companies from all over the industry. I discovered building products and energy systems available on the market today that are being used to reduce the harmful environmental impact of our buildings. Additionally, I spoke with several engineering professionals who explained their company's services and capabilities relating to sustainable design and construction. On top of the conference, this was an excellent opportunity for me to network with working professionals and plan my career options.

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

Attending this conference was both inspiring and motivating. Most of the time in speaking to architectural, engineering, and construction companies, sustainability is a minor concern that everyone has in their mission statement. Alternatively, professionals at Greenbuild make sustainability and building performance optimization a priority in every project they work on. It confirmed for me that I am moving along the right path to achieve my career goals in sustainable engineering design.

I also hope that my attendance impacted others. At each talk I attended, I posed questions to the presenters and attendees in the room and even stayed to introduce myself to individuals. Since the green building movement is really just starting to gain momentum - and very rapidly - I hope that my attendance informed employers and professionals as to what students are learning in their undergraduate years now.

**Describe how this experience is connected to your plans as a student or future professional.**

I plan to incorporate the lessons learned at Greenbuild into my future plans in multiple ways. Most immediately, I am investigating how energy modeling works in a project for my Environmental Systems architecture course. I was introduced to energy modeling software at Greenbuild, and I'm most interested in how it informs early design decisions and its benefits in reducing the cost of LEED construction. To prepare for my capstone, I am asking for work assignments on projects related to energy at Notre Dame. I work as a student assistant at the Facilities Design and Operations department at the university, and hope to be involved in a project that allows me to look at energy consumption in some of our buildings, and what kind of systems we use for HVAC, lighting, plumbing, and other building services. Looking forward to my long term career, I plan to pursue LEED certification as a professional and seek employment positions with engineering companies that specialize in sustainable design. Greenbuild certainly confirmed my interest in the field and I will continue to carry the lessons I learned there with me.

**What advice would you give other students who are planning to pursue similar projects?**

Attending a conference is both intimidating and exhausting. I was the only one from Notre Dame in attendance, and sometimes traveling alone to a new city and being surrounded by thousands of unknown people is challenging. My advice is to never be hesitant to introduce yourself to someone you are interested in meeting or speaking with. Everyone at the conference shares a

common interest, and often times you make a connection very easily in learning about each other's studies or line of work. Additionally, a conference schedule is usually very busy. The consecutive days and presentations can feel non-stop, but be certain that you take advantage of all opportunities you can in that short amount of time! Take notes on presentations to stay focused, and also take time to reflect on what you have learned. Attending a conference is an excellent opportunity to interact with others in your field and learn a lot more about what is going on at the industry level.

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