

Nathaniel Weger

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Education

The University of Iowa, Iowa City, IA

Graduating: May 2018

B.S.E., Mechanical Engineering

GPA: 3.96/4.00

- Awards: UI Honors Program, President's List, Dean's List, Old Gold Scholarship, Provost Scholarship

Engineering Experience

Executive Board, *American Wind Energy Association*

August 2015 - May 2017

- Designed, assembled, and tested 5 kW wind turbine capable of charging a mobile device

Industrial Sector Operations Engineer, *Eaton Corporation Internship*

May 2016 - August 2016

- Saved over \$50,000 in annual scrap reduction by finding solutions to decrease dropped valves
- Designed and developed safer work tools and environments using Solidworks CAD software

American Institute of Aeronautics and Astronautics

August 2015 - May 2016

- Researched, designed, and built a high-power rocket to launch in a competition

Quality Control Lead, *Bridges to Prosperity Internship in Nicaragua*

June 2015 - August 2015

- Designed and constructed a suspended bridge with rurally isolated community of Mata Palo in 8 weeks
- Led daily quality checks and recorded each phase of construction to ensure safety and quality

Short-term Internship, *Heinz*

January 2013

- Remodeled shipping container storage procedures for over \$100,000 in annual savings

Research and Academic Experience

Research Assistant, *Combustion and High Speed Fluid Mechanics Lab*

October 2015 - Present

- Investigated the use of trash to produce energy through the biomass gasification process

Teaching Assistant, *University of Iowa*

August 2016 - Present

- Instructed students in C++ and Matlab programming techniques

Independent Research, *Universidade Federal de Itajubá*

May 2017 - August 2017

- Conducted tests in downdraft gasifier to explore the gasification of refuse-derived fuels

Research Assistant, *Iowa Institute of Hydraulic Research*

February 2015 - March 2016

- Developed Python code that predicts and models water levels in rivers around Iowa
- Utilized drones and helicopters to collect data and improve flood inundation mapping models

Leadership and Volunteer Experience

President, *Continental Crossings*

September 2014 - Present

- Volunteered to raise money to go towards building bridges in rural Nicaragua

Grand Challenges Scholar, *National Academy of Engineering*

May 2015 - Present

- Selected as one of four Iowa students annually to complete a co-curricular program centered around one of the 14 grand challenges identified by the NAE

- Selected as one of six students in the US to serve on a panel at the GCSP Summit in Washington, D.C.

Volunteer, *Iowa City Stormwater Volunteer Opportunities*

September 2015 - Present

- Coordinated groups to remove trash and invasive plants from local creeks and rivers

Senator, *University of Iowa Student Government*

January 2017 - May 2017

- Lobbied state government to reduce tuition increases and facilitated water-recycling system

Flood Prevention, *City of Cedar Rapids*

September 2016

- Coordinated University of Iowa effort to assist in flood prevention efforts in Cedar Rapids

Skills

- Computer – Autodesk Inventor, Solidworks, PTC Creo, Matlab, C, C++, Python, LabView
- Language – Limited working proficiency in German, Elementary proficiency in Spanish