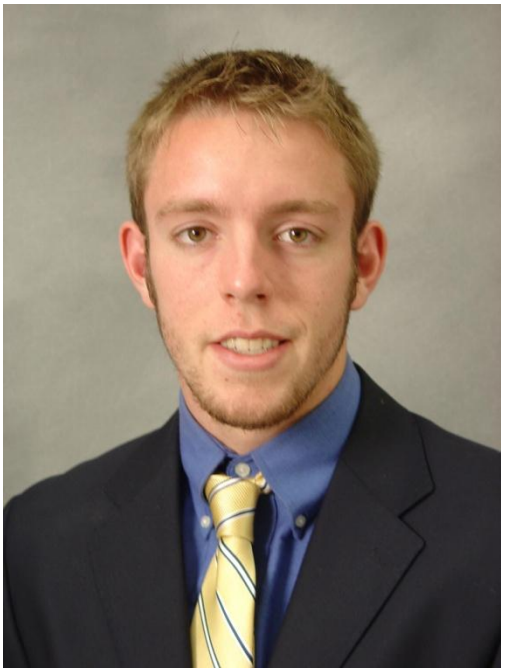
Personal Statement

Global Professional Engineering Profile:

Fletcher A. Bean, Purdue University



Commitment

In the fall of the year 2007 I entered into the First-Year Engineering program at Purdue University believing that my choice of major that would carry me through my four-year bachelor's degree program and out into the work force of society was Mechanical Engineering. I soon came to the realization that engineering is not what grasps my interest and focus. There are parts of engineering that really captivated me on a scientific and mathematical level, but something was not quite right. After being accepted into the School of Mechanical Engineering and starting my sophomore year at Purdue I found the major that I believe I should have started college studying. It is called Mechanical Engineering Technology; abbreviated as MET. MET combines many of the important and essential aspects of mechanical engineering and applies them in physical, real world circumstances. By that I mean I am involved in a hands-on environment in which I am involved in every step from the design portion to the fabrication and finalization of an idea. This is what I was looking for when entering college as a recently graduated eighteen year old.

Engineering Background

I labeled this section as “Engineering Background” because even though MET is a technology major it is heavily related to the engineering field. And with that being said I believe I am heavily related to the engineering field through the several engineering experiences I have been associated with. During my junior and senior year of high school, even with the many extra-curricular activities I was a part of, I was able to devote my time and contribute my ideas to the Bloomington Robotics Club. The team consisted of high school students the same age as me and several adult mentors from various different technical and engineering backgrounds.

The basic goal of the team was to build a robot that could compete against other robots performing certain tasks all while being controlled by a human player or, at times, completely autonomous. The most memorable aspect of being a part of such a neat team was not particularly competition, but designing, constructing, and “accidentally” destroying the robot (to expose the weakest links.) Being able to consult with and learn from the multiple adult mentors was key to my development as an engineer. The most influential mentor was Drew Hoffman. He was the embodiment of a perfect engineer. First, he made a career of what he loved. He owned his own business, but was not obsessed with the money he could have made if he wanted to. He made sure all his work was built to specifications that made the product safe, ethically, and environmentally sound. He inspired me to pursue my current major and I believe his ethics composure has rubbed off on me.

Another important experience was my summer work experience during this past summer of 2008. Despite the fact that I was working for a local landscaping company, I was also interning as an engineer for the same local company. I was not actually an intern or an engineer, but I was put face-to-face with engineering problems and decisions on a daily business. During the summer of 2008 oil prices were sky-high and the company, which had eight work trucks, six lawnmowers, and countless small gasoline engine powered tools, was losing valuable profit to travel expenses. While I was on the lawn mowing crew we engineered our daily routes to reduce our mileage and gas consumption.

Later in the summer I was placed on one of the landscaping teams to assist in the design and construction of many landscaping projects. One memorable project was the construction of a wall in the backyard of a client’s property. This so called simple project actually had ability to become a disaster if approached wrong. If the wall was built incorrectly without the correct backward slope or with the wrong type of foundation after the first rainfall the wall had the potential to collapse and allow the retained earth to cascade into the sidewall of the newly built above ground pool causing a collapse and thousands of dollars in damage. It were these type of engineering projects and decisions that I was exposed to on a daily basis for nearly four months during the summer of 2008.

Professional Goals

Upon graduation from Purdue University, I would love to be able to put my recently awarded Mechanical Engineering Technology degree to use. This is not saying that I want to immediately get into the workforce. One personal goal that I have is to be able to travel. The circumference of the earth about the equator is just less than 25,000 miles. The world is a small place and with the technology and engineering that is taking place at this very moment the world is becoming even smaller and smaller. I want to see the world and connect with all the other people sharing the same air as me. I strongly believe that I share this same idea with countless others and I believe that it is essential for engineers to seek out connectivity with others around the globe.

While still in high school and shortly after graduation, but before my freshman year of college I was able to travel abroad to several different European countries and experience their culture all the while being immersed in their engineering priorities without consciously knowing it. For instance, while living in Lingen, Germany with a host family I saw Martin, the father, install a solar water heater for the pool. It used the pool's water pump to pump water through a maze of black hoses that were placed on the roof of the pool house before returning back to the pool. It allowed the family to use the pool for a much longer time during the year without using any extra energy. Using alternative energy sources is a huge priority for Europe as a whole. The implementation of several alternative energy sources, such as wind turbines, hydroelectric generators, and nuclear power plants on large and more importantly small scales have really helped in the whole energy crisis. As many Americans have probably noticed European cars are small and compact, as well as very fuel efficient. Also, from what I have personally noticed, they are quite spacious and comfortable for their size. What I would love to do before getting into the American workhorse of a society is get out into the world and experience firsthand the innovative and creative engineering going on in different countries and maybe, just maybe, be able to bring some of that taste back to America.