

# SCHOLARSHIP IMPACT REPORT



## Edward E. Peck, P.E. Memorial Scholarship

**Elliott Lewandowski**

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Fairbanks, AK

UAF Electrical Engineering

### **My educational and career goals include...**

When I was younger I found great joy in taking apart a variety of electronic devices. As I grew up I stopped dissecting every piece of electronic equipment to be found at the transfer station. This past fall I was considering colleges to apply to and I found myself thinking about this old habit. I remembered how much fun it had been to spend hours sitting on the ground with a screwdriver in hand, screws and plastic scattered around. This led me to consider what programs might give me a chance to continue to have experiences like this. I came to the conclusion that an engineering program would be my best option. At the same time I was also considering a more recently developed interest, prosthetics. I'm not sure why but somewhere along the line the idea of being able to create functioning limbs to replace those people had lost made its way into my mind. Given these two interests I thought I might go into Biomedical engineering as it combines both rather nicely. As I spent more time thinking about my decision I realized that the part of prosthetics that fascinated me lay mostly in how electronic components were replicating human movements. With this in mind I have decided to aim for a bachelor's degree in Electrical Engineering. I found that undergraduate programs focused on robotics are rather rare but an Electrical Engineering degree is an acceptable substitute. After my undergraduate studies I hope to focus my graduate studies on robotics. All of this is to place myself in a position where I have the requisite knowledge to be part of a team working on prosthetics. I don't expect to be able to gain an extensive understanding of every discipline that goes into creating new limbs so I want to attempt to become as informed as possible about a single aspect of their creation as I can. In this way I can best place myself in a position where my contributions to a team are meaningful.

Another draw of going into the field of robotics is the opportunity to continue learning that it will afford me. I don't want the end of my formal education to be the end of my ability to continue learning. The funnest projects I have completed have been those where I started with minimal understanding of the subject matter and then slowly increased my knowledge base until I created a product I could be proud of. In AP Computer Science I started out with an acceptable understanding of the language being taught. It was an amazing feeling when a new

idea was being taught and I finally found that one piece of information that got my program to work. I don't want to lose that feeling and I think that robotics is a field that will present me with challenges that require me to grasp new concepts regularly.

### **Outside of the classroom I like to...**

In seventh grade I participated in a Debate Club. It was a fun experience but it only lasted for one year as the teacher retired and I did not actively seek to make it happen the next year. During my sophomore year I was invited to a one day debate competition that was being hosted by Steven Johnson from UAA. I spent a day having debates with students from other schools in the district and it was a blast. After this I did what I should have done in eighth grade, look for a teacher to sponsor a debate club. I found one and within a week or two the first meeting was held. I participated in this club for the rest of my sophomore and junior year, unfortunately the teacher sponsoring the club moved and I once again stopped participating in debate. This time I did not abandon it in its entirety, instead I decided that I would take part in Model United Nations. So far I have participated in three mock conferences with other students in the club. Similar if more extensive research is required as compared to debates and the speaking time is slightly less structured than most debate formats. I am about to attend an international conference in Washington DC so I am looking forward to meeting people from other countries as well as getting to experience what a more formal Model UN conference is like.

In the past year I have also been participating in a new club called the Climate Defense League. As the name suggests it is an environmental club and so far I have mostly been involved with the recycling aspect of things. At the start of the year I was the one responsible for finding and cleaning the tubs that we use to collect paper in classrooms. Since then I have assisted in collecting the recyclables weekly and am usually the one who is responsible for transporting them to the recycling plant although other people sometimes take my place.

Outside of school my activities vary depending on the season. Last winter I went downhill skiing for the first time and I don't think I missed more than one weekend last year. This year I've missed a few but I go at least once most weekends. I also do cross country skiing although that is a far less common occurrence. When summer rolls around my activities generally get a bit more varied. I go on a pretty decent number of river trips throughout the summer. A couple of years ago I picked up kayaking so recently that has been the main watercraft that I use but I would say that I'm better at canoeing as I've been doing it most of my life. I also do a fair number of hikes, this last summer I did Tabletop Mountain up the Steese Highway and Angle Rocks is always a nice view.



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**Alex Tuttle**

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UAA Mechanical Engineering

### **My educational and career goals include...**

I would like to graduate UAA with bachelors degree in mechanical engineering. I would then like to pursue a medical career in neuroscience; specifically, integrating advanced prosthetic devices with the human nervous system. As a long term career goal, I would like to make such devices safer, cheaper, and more readily accessible to those with limited financial needs due to income or geographical location.

### **Outside of the classroom I like to...**

I enjoy researching various scientific fields, such as medical, aerospace, and physics. I enjoy teaching myself programming languages such as C++. I enjoy spending time with my parents and four younger siblings.