I am a student from Jacobs University situated in Bremen, Germany, where I am studying Electrical and Computer Engineering. It is a rigorous major that develops a very strong mathematical and analytical foundation for us. My undergraduate career at Jacobs has introduced me to numerous fields such as machine learning, computer vision, robotics, embedded systems, signal processing, information theory, control systems, electronics, wireless communications, numerical methods, probability, random processes and so on. On top of this, I received deep understanding of programming through projects, labs and assignments, which has developed my acumen in C, C++, Python, and MATLAB.

I found my undergraduate years very eye-opening. As I moved from one course to another, I realized that all these topics were just different sides of a multifaceted dice, and I got more and more absorbed by the sheer beauty of this grand design. However, I didn’t see all this knowledge come into action until I came to Drexel University to do my Study Abroad Exchange Program. I joined two classes at the College of Engineering at Drexel, which are the following:

1. ECE-310: Machine Learning Practicum, instructed by Professor John Walsh
2. ECE-302: Design with Embedded Processors, instructed by Professor Prawat Nagvajara

These two courses provided me with some of the best academic experiences I’ve had so far. In ECE-302, we programmed the microcontrollers on an embedded-linux distribution to develop small IoT projects, like controlling LEDs or Servos from websites being served from a Beaglebone, which I found very interesting. However, Professor Walsh’s course, ECE-310, was the highlight of my Drexel academic experience. For the first time, I found myself going beyond the theoretical barriers and applying advanced concepts such as Transfer Learning and Reinforcement Learning. Professor Walsh showed us how to apply these concepts and build actual models that can classify flowers or play the Atari games. Furthermore, we were introduced to very powerful tools such as tensorflow, scikitlearn, tf-agents, Google Cloud Platform, Pandas, and much more.

As I prepared for my PhD application, Professor Walsh also took time out of his extremely busy schedule to guide me. We talked about my interests in Transfer Learning, Computer Vision and Reinforcement Learning, and Professor Walsh’s research in Network Coding. With his guidance, I was able to obtain some clarity on how I should pursue my goals and my research. He also exposed me to research currently going on at Drexel within my fields of interest, which helped me a lot with my search. On his suggestion, I have also attended the Graduate School Seminar, which introduced me to the Drexel Faculty and a deeper understanding of their research.

Through all of this, I have developed a familiarity with Drexel faculty and research, which is one of my biggest reasons for applying to Drexel.