IIP: Queen’s University Belfast

(an MAE person after her junior year)

June – July 2017
Positioning Control for the Wireless Charging of Electric Vehicles

- Platform: mechanical setup to align the transceiver and receiver of the Evatran wireless charger
- Challenge: how to direct the motors to move receiver to location of highest charging rate
- Summer 2017: improved the platform by identifying and integrating better hardware and software to more effectively control the motors
Streamlining the Platform

Hardware: More Robust
- Replaced ultrasound sensor with infrared sensor
- Replaced Gertbot-Raspberry Pi setup
- Integrated Phidget Motor Controller

Software: More Built-in Capabilities
- Replaced Python
- Learned and used LabView
Rewarding Work + Environment

- Calling the shots: I made decisions on the project based on what I researched, but also based on what I wanted to learn.
- Building on knowledge: I applied wisdom from experience in sophomore and junior year MAE labs to the problems.
- Working with Shawn: super energetic PhD student in the Power Systems group, literally always there to help me out.
- Office: 8th floor views (rare in Belfast)
A Summer with Grad Students

- Lunch with the Power Systems group every Thursday, plus shared an office, saw the coast together
- (and played with their Virtual Reality PhD theses)
- Definitely got a taste for the life of self-directed, self-challenged PhD students
- Decided I would rather enter industry first, and go to graduate school with a more focused purpose later in life (like some students I got to know)
What I Learned After Work Hours: Northern Ireland is Beautiful 😊

These are a couple photos taken when my supervising professor drove me and a couple other (PhD) students to the North Coast to see Carrick-a-rede Rope Bridge, Giant's Causeway, etc. The grass is greener on the other side!
TLDR; a self-motivated internship with supportive players who want you to succeed and enjoy yourself, on a relaxing, beautiful island.