

Ashley N. Coggins

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EDUCATION

University College London, London, United Kingdom

Expected: September 2018

MSc Rehabilitation Engineering and Assistive Technology

Case Western Reserve University, Cleveland, OH GPA: 3.64/4.0

May 2016

B.S. Mechanical Engineering

B.S. Biomedical Engineering, Biomechanics Concentration

TECHNICAL EXPERIENCE

Steadman Philippon Research Institute, *Research Engineer*

May 2016 – May 2017

- Program and troubleshoot a 6 DOF KUKA robot to run biomechanical tests on cadaveric knees for various studies
- Analyze collected data, design fixtures for instron testing, and draft manuscripts for publication
- Currently designing a study to measure pressure changes in the hip capsule after a labral repair

Senior Design Project, *Team Leader*

August 2015 – May 2016

- Created a self-adjusting prosthetic leg socket to offset excess pressure and conform to the daily fluctuations of a transtibial residual limb

Undergraduate Research Assistant

Dr. Musa Audu & Dr. Ronald Triolo, Motion Study Lab, Cleveland VA Medical Center

October 2015 – May 2016

- Research to control standing balance in patients with spinal cord injury with the use of functional neuromuscular stimulation
- Validated a method of estimating whole body center of mass using Vicon motion capture and trained a neural network to associate center of mass with accelerometer movement to determine accelerometer placement for a future take home system

Dr. Dustin Tyler, Functional Neural Interface Lab, CWRU

December 2014 – May 2015

- Research to reduce muscle fatigue and effectively prolong standing time for individuals with spinal cord injuries through the use of an implanted neuroprosthesis

Clinical Immersion Program, *Biomedical Engineering Intern*

June 2015 – August 2015

- Developed engineering solutions to observed clinical problems in a weekly report
- Presented solutions to HealthSpan and Case faculty to be used as options for BME senior design class

CWRU CREATE Program, *Team Co-Leader*

June 2014 – August 2014

- Created a prototype sensor holder for the Ottobock prosthetic hand to allow for more efficient lab testing
- Led four team members through weekly progress reports with Medtronic mentor

Independent Flotation Project

January 2015 – December 2015

- Designed a pool float to give a young girl with cerebral palsy independence in the pool

COMPUTER SKILLS

SolidWorks, MATLAB, Simulink, LabView

LEADERSHIP & CAMPUS INVOLVEMENT

Labre Program, *Co-fundraising Chair*

January 2014 – May 2016

- Contact student organizations to provide 50% of our food donations every month
- Coordinate the scheduling of semester fundraiser, Bucks for Buckeyes
- Deliver 10-15 home-cooked meals to the homeless throughout the Downtown Cleveland area every week

Kappa Alpha Theta Fraternity, *Human Resources Director*

January 2014 – December 2014

- Plan social events for the chapter and record meeting minutes at weekly membership development committee meetings

Varsity Track & Field Team, *Sprints*

August 2012 – January 2015

- Dedicated over 15 hours a week to workouts and meets

WORK EXPERIENCE

CWRU Tinkham Veale Center, Cleveland, OH, *Customer Service Associate*

October 2013 – May 2016

- Balance full course load while working 10 hours a week overseeing equipment rentals