

Caeli M. Quiter

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Summary of Biomedical Engineering Research Internship Qualifications

- Capacity to use MATLAB, Abaqus, Python, OrCAD, CodeV, and general Microsoft Office software including Excel
- Research skills and teamwork abilities enhanced through laboratories and group, academic projects in classroom settings
- Leadership skills demonstrated through various volunteer opportunities and community service projects
- Cultural awareness and international education attained from study abroad experience
- Proficiency in Spanish language

Biomedical Engineering and College; Activities and Honors

UNIVERSITY OF ROCHESTER

ROCHESTER, NY

Master of Science Biomedical Engineering: Center for Medical Technology and Innovation (CMTI)

Anticipated May 2017

Bachelor of Science Biomedical Engineering: Concentration in Medical Optics

May 2016

- Cluster courses pertaining to “The Performing Musician”
- Biomedical Engineering Society (BMES): active member, Executive Board, Mentoring Chair and Fundraising Chair
- “Renaissance and Global Scholarship,” Recipient of full, four-year tuition for Academic Excellence and Involvement
- UR Celtic Irish Dance Team Member; Women’s Ice Hockey Team; Women’s Rowing Team; University of Rochester Symphony Orchestra; Cello Lessons at Eastman School of Music; Gamma Phi Beta Sorority Member; Institute for the International Education of Students (IES Abroad) Ambassador; Colleges Against Cancer Member
- Executive Board Positions: UR Celtic - President, Publicity Chair; Women’s Ice Hockey Team – Vice President; Relay For Life – Entertainment Chair; Gamma Phi Beta Sorority – Standards Committee
- International Education of Students (IES) study abroad experience at Dublin City University in Dublin, Ireland in Spring, 2015
- Recipient for Xerox Engineering Research Fellow Program for Summer 2015 in Yoon Lab

Research Experience

FLAUM EYE INSTITUTE, UNIVERSITY OF ROCHESTER MEDICAL CENTER, ROCHESTER, NY *Summer 2015 – December 2015*

- Research assistant in Dr. Geunyoung Yoon’s laboratory
- Used various computer programs to study the biomechanics of the cornea

ROSS EYE INSTITUTE, BUFFALO, NY

Summer 2014

- Assistant in the Medical Imaging laboratory under Dr. James Reidy
- Used OCT scanner, Optos scanner, and P-cam for retina, sclera, glaucoma, and cornea imaging on patients of all ages; Observed and interpreted corneal topography from results of imaging devices

Selected College Courses, Concepts and Projects

Senior Design; Quantitative Physiology; Biomaterials; Systems, Signals, & Imaging; Biosystems and Circuits; Translational Biomedical Optics; Interference and Diffraction; Geometrical Optics; Biomedical Microscopy; Biomechanics; Introduction to Biomedical Engineering; MATLAB; Biological Statistics; Numerical Methods, Linear Algebra and Differential Equations; Calculus IA, IIA, and III; Chemistry I and II; Physics: Electricity and Magnetism, Mechanics; Genetics, Microbiology, Human Anatomy, and Biology

- **Head Positioning and Eye Fixation System for Primates, Fall 2015 – Spring 2016:** Senior Design team of 4 members worked with the Advanced Retinal Imaging Alliance (ARIA) in order to design a new way to fixate a primate’s pupil to an ideal location for retinal imaging to be done. This involved engineering analyses, brainstorming sessions, weekly reports and meetings, and iterative prototypes throughout the year.
- **Individualized visual correction based on optical and biomechanical responses of the cornea, Summer 2015:** Used MATLAB, Abaqus, and Python to simulate refractive surgery on the cornea taking into consideration individual refraction, geometry, and material properties in order to create an individualized customized ablation profile. Presented scientific poster upon completion of summer and submitted abstract to present research at annual BMES conference in October 2015.

Community Service, Employment and Co-curricular Leadership

- Cabana Sam’s - Shirt Shack employee, dishwasher, Game Room attendant, and Ice Cream employee, 2009-2014
- Southtown’s Youth Orchestra, 2008-2012
- Hanford Bay Community Club Executive Board Member, 2008-2013
- Cradle Beach Camp – camp for children with disabilities and illnesses, 2011
- 3rd grade teacher’s aid for religious education at St. Mary’s of the Lake parish, 2011-2012