

# Gabrielle L. Clark

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## EDUCATION

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**Tulane University**, New Orleans, LA  
Doctor of Philosophy in Biomedical Engineering In view  
**University of Central Florida**, Orlando, FL  
Bachelor of Science in Mechanical Engineering May 2016  
**Florida International University**, Miami, FL  
Credits earned: 75

## RESEARCH EXPERIENCE

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**Undergraduate Research Assistant** August 2015 – May 2016

Cellular Mechanics Laboratory, University of Central Florida, Orlando, FL

- Fabricated Hydrogels
- Cultured human umbilical vein endothelial cells

**Emergent Behaviors of Integrated Cellular Systems REU** May – August 2015

Botchwey Laboratory, Georgia Institute of Technology, Atlanta, GA

- Developed methodologies for time and concentration dependent cell morphology studies
- Genotyped sickled mice utilizing a Native PAGE for hemoglobin
- Isolated red blood cell derived microparticles and protein for western blot analyses

**Undergraduate Research Assistant** May – August 2013

Optical Imaging Laboratory, Florida International University, Miami, FL

- Performed diffused optical imaging studies on subjects with normal and abnormal breast tissue using a novel hand-held probe based near-infrared optical imaging device

## PROJECT EXPERIENCE

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**Research and Mentorship Program (RAMP),** October 2014 -April 2015

Medical Robotics Laboratory, University of Central Florida, Orlando, FL

- Designed and modeled a support system for the Raven II Surgical Robot utilizing SolidWorks
- Performed a stress and vibration analysis to compare the structural integrity of various designs

**Extern** March 2014

Milan Engineering, INC., Orlando, FL

- Verified duct sizes for an equestrian center's mechanical drawing
- Calculated airflow rate by performing room-by-room load calculations

## **TEACHING EXPERIENCE/ ACADEMIC SERVICE**

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### **Teaching Assistant**

Duke Talent and Identification Program

June-August 2016

- Assisted in lesson planning for the Engineering Problem Solving course
- Planned and facilitated evening study sessions

### **Undergraduate Teaching Assistant**

Department of Mechanical and Aerospace Engineering, University of Central Florida January-May 2016

- Assisted the dynamic's professor in classroom instruction, exam proctoring, and record keeping
- Met with students during office hours

### **Pre- College Initiative Chair**

National Society of Black Engineers

May 2012 – May 2013, May 2015 – May 2016

- Developed and taught STEM lessons to K-12<sup>th</sup> grade students
- Lead 6-8<sup>th</sup> grade students in projects for engineering competitions

### **Content Tutor**

August – December 2014

Academic Services for Student Athletes, University of Central Florida

- Assisted student athletes in understanding course material while promoting independent learning during tutor sessions
- Maintained a high level of knowledge in academic content areas: algebra, calculus and physics
- Facilitated final exam study sessions

### **Math Tutor**

February – May 2014

Oak Ridge High School, Orlando, FL

- Delivered classroom lectures on algebra concepts and problem solving to 90 students in the 9<sup>th</sup> – 12<sup>th</sup> grade
- Provided one-on-one and small group algebra tutoring to prepare students for the End of Course Exam (EOC)

## **HONORS AND PROFESSIONAL MEMBERSHIP**

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ΠΤΣ, Mechanical Engineering Honors Society

American Society of Mechanical Engineers

Biomedical Engineering Society

National Society of Black Engineers

Ronald E. McNair, Scholar

Boeing Scholarship, Recipient

Louisiana Board of Regents, Fellow