

# MONICA KALA

Phone: (601) 260-5227 | Email: mkala@tulane.edu | Address: 1108 Pine Street, New Orleans, LA 70118

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## EDUCATION

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### TULANE UNIVERSITY

Biomedical Engineering Candidate, Expected Graduation May 2018

New Orleans, LA  
August 2014 – May 2018

- Relevant Coursework: Circuits, Electronics, Cell Biology, Organic Chemistry, and Engineering Mechanics
- Academic Honors: Dean's Honors Scholar; Dean's List (3 semesters); Tulane University Honors Program; National Merit Finalist; Alpha Lambda Delta (Women's Honors Society)
- Pre-Medical Society Member
- Overall GPA: 3.75/4.00

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## EXPERIENCE

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### TULANE UNIVERSITY BIOMEDICAL ENGINEERING DEPARTMENT

Research Assistant in Cellular Biomechanics and Biotransport Laboratory

New Orleans, LA  
August 2016 – Present

- Conduct an independent research project that tests the synergistic effect of high intensity focused ultrasound and temperature sensitive liposomes containing chemotherapy on liver and prostate cancer *in vivo*
- Prepared tissues for immunohistochemical analysis

### SUMMER RESEARCH EXPERIENCE FOR UNDERGRADUATES

Research Assistant at Tulane University in Mathematical and Computational Biofluids sponsored by the National Science Foundation.

New Orleans, LA

May 2016 – Present

- Perform simulations of panels characterized with springs and beams and seek to maximize thrust output
- Evaluate the effects of fluid forces on the panels by applying the Navier-Stokes and Euler-Bernoulli equations
- Assessed the performance of flexible panels with non-uniform stiffness

### TULANE UNIVERSITY HOUSING DEPARTMENT

Desk Services Coordinator

New Orleans, LA  
August 2015 – May 2016

- Collaborate with housing staff to develop programs and address issues within the residence hall
- Enforce rules and regulations to ensure the smooth and orderly operation of the residence hall
- Assist in day-to-day, administrative tasks such as documenting residence hall guests and encoding access codes for all 250 residents of the building

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## LEADERSHIP AND SERVICE

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### PHI MU FRATERNITY DELTA CHAPTER

Secretary and Discipline Chair (previously assistant secretary fall 2015)

New Orleans, LA  
December 2015 – Present

- Manage and organize the event calendar and reservations for the entire chapter
- Document minutes of all chapter meetings and send out biweekly chapter updates to National Headquarters and all chapter members
- Record and track attendance for over 200 members at all events
- Improve communication and transparency between the executive board and the chapter by ensuring all meeting minutes are accessible to all chapter members
- Counsel chapter members about their offenses and formulate potential solutions to better our sisterhood

### CHILDREN'S HOSPITAL OF NEW ORLEANS

Volunteer in Post-Anesthesia Recovery Unit

New Orleans, LA  
August 2016 – Present

- Communicate patients' needs to nurses and act as a liaison between parents and nurses
- Organize patient space and equipment, prepare beds, and restock recovery room supplies

### SCIENCE AND ENGINEERING HONORS SOCIETY

Treasurer (previously engineering representative Aug. 2015-May 2016)

New Orleans, LA  
May 2016 – Present

- Organize meetings and club events including general body meetings, faculty meet and greets, professor lectures, and more
- Act as a liaison between the students in the school of science and engineering and the faculty in the department in order to better relations and communication between the two bodies
- Arrange meetings with faculty members in the engineering department and invite professors to speak at events hosted by the organization

### HEART OF HOSPICE

Volunteer

New Orleans, LA  
October 2015 – Present

- Visit hospice patients in nursing home in order to increase morale through activities such as reading books and coloring
- Manage and organize computer files on patients upon completion of a HIPAA seminar