Marissa D'Souza

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EDUCATION

Mercer University School of Medicine   **August 2017 - May 2021**
Doctor of Medicine
Georgia Institute of Technology, College of Computing   **August 2013 - May 2017**
Bachelor of Science in Computer Science, Certificate in Entrepreneurship   *Overall GPA: 3.5/4.0 | Major GPA: 3.9/4.0*

EXPERIENCE

Georgia Tech Cognitive Neuro Motor Control Lab   **Jan 2015 - Present**
Research Assistant
- Examining differences in force modulation between healthy adults and adults with spinal cord injury in order to come up with unique neuro-rehabilitation strategies in collaboration with Dr. Lewis Wheaton (GT) and Dr. Deborah Backus (Shepherd Center)
- Running and analyzing MRI and EEG data through the use of Excel, SPSS, MATLAB, and R

Center for Advanced Brain Imaging   **May 2014 – Jan 2015**
Research Assistant
- Investigated the effects of brain games and training on one's cognitive skills under Dr. Eric Schumacher
- Used MATLAB and E-Prime software to conduct experiments, record results, and analyze data

Johns Creek Tennis Academy   **Jan 2013 - Aug 2013**
Tennis Instructor
- Taught 50+ students in grades K-12 the game of tennis including strokes, strategies, and overall fitness.

Mercer University Immunology Lab   **May 2011 – May 2013**
Research Assistant
- Determined the effects of nanoparticle formulation as a potential tumor targeting and imaging delivery system

PROJECTS

VADERS (Value Analysis Data Extraction Research System)
- Implemented a software (Java) with Dr. Bruce Ziran that utilized image recognition to analyze x-ray reductions
- Incorporated machine learning and classification algorithms (k-Nearest Neighbors) to combine x-ray reduction quality with time and cost of surgery to determine the quality and value of a surgeon

"Food Renewed" App
- Collaborated with Feed the Children to create an iOS application and web based mobile site that matches individuals in the Supplemental Nutrition Assistance Program with grocery stores and restaurants that are about to throw out food
- Utilized Material Design for user interface development and Django for back end development

"Shopping With Friends" App
- Created an Android and iOS application for shoppers to post information about various items' prices, locations, and availability to share with friends

"When I Grow Up" App
- Designed and protoyped an iOS app using Axure which features a board game designed to help users determine which career fields and roles match their interests the most and manage a career on the game board from entry level to retirement

LEADERSHIP

Multicultural Greek Council, MGC   **Jan 2015 – Dec 2015**
Executive Vice President
- Corresponded with the President of MGC as well as the Presidents of other Greek councils to organize campus-wide events to help students get together and give back to the campus
- Re-designed the Georgia Tech MGC website in efforts to spread MGC name throughout campus and promote diversity awareness

Sigma Sigma Rho Sorority, Inc.   **Jan 2014 – Dec 2015**
Vice President of Communications, Philanthropy Chair, Public Relations Chair, Marketing Chair,, Recruitment Chair
- Managed logistics and crucial marketing/delegating critical tasks to ensure success of all events
- Increased intake by 150% through the use of effective marketing strategies including photography, flyers, and the redesign of the website: gtsigsigrho.com

Biomedical Engineering Society   **Jan 2014 - May 2015**
Secretary
- Encouraged the use of technology within the club through extensive collaboration with the web developer and other board members

PUBLICATIONS

- Kolluru, L., Rizvi, S., D'Souza, M. (2013). Formulation development of albumin based theragnostic nanoparticles as a potential delivery system for tumor targeting. *Journal of Drug Targeting,* 77-86.
- D'Souza, M., Gala, R., Ubale, R. (2015). Trends in Nonparental Delivery of Biologics, Vaccines, and Cancer Therapies. In *Novel approaches and strategies for biologics, vaccines and cancer therapies*. Academic Press.

SKILLS/INTERESTS

Languages: CSS, HTML, MATLAB, SPSS, Java, JavaScript, jQuery, Python, R, SQL, Django, Material Design, Swift
Software: Adobe Creative Suite, AFNI Neuroimaging, OSX, Microsoft Office Suite, LaTeX, Android Studio, Xcode, Axure
Coursework: Computational Photography, UI Design, Computer Graphics, Industrial Design Computing II, Real Estate Development
Volunteer: Fulton County Animal Shelter, Georgia SPCA, Habitat for Humanity, Hands On Atlanta