

Diego Machado Reyes

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Education

PhD Biomedical Engineering

Aug 2020 – Present

Rensselaer Polytechnique Institute

B.S.B.E Biomedical Engineering Emphasis in Bioinformatics

Aug 2016 – May 2020

The University of Mississippi

Latin Honors and Awards: Magna Cum Laude, Dean's Excellence Award.

Sally Barksdale Honors College: Honors Scholar in Biomedical Engineering

Relevant research projects and publication

Graduate Research Assistant

Aug 2020 – Present

- Apply machine learning techniques for outcome classification of COVID19 patients with CVD.

Undergraduate senior project researcher

Senior design in Biomedical engineering course

Oct 2019 – May 2020

- Followed biodesign strategy: Identify unmet clinical needs, develop a need statement, research market, current patents and prior art, propose a regulatory pathway, propose and develop solutions.
- Developed a possible solution to address the difficulties and procedural time for polypectomy in patients with colon polyps that may reduce the complications caused by the procedure, and the time of the procedure overall; these will reduce negative outcomes and costs for the patient
- Interacted with a gastroenterologist that proposed the unmet clinical need.

Undergraduate researcher

Honors College Thesis

May 2019 – May 2020

- Develop a system to detect Parkinson's disease at early stages with computer vision.
 - Use Kinect™ sensors for tracking of different gait parameters and use a neural network to analyze the data with the objective of detecting very early motor symptoms for PD.
- Interact with doctors and patients.
 - Interact with doctors to understand the clinical constraints and analyze the possibility of implementing the system as a supportive diagnostic tool. Interact with patients to better understand their day to day life.
- Applied and received funding from Sally Barksdale Honors College.
- Submitted to JYI a literature review article as a precursor to the thesis.
- Publication of Honors Thesis available at – https://egrove.olemiss.edu/hon_thesis/1414

Undergraduate researcher

Interdisciplinary NanoBioSciences Lab

Jan 2019 – May 2019

- Helped set up the Interdisciplinary NanoBioSciences Lab.
- Certified for Chemical and Biological safety training for UM facilities.
- Gained a deeper understanding of mechanisms for cancer metastasis.

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Professional experience

Community Assistant

The University of Mississippi Student Housing

Aug 2017 – May 2019

- Directly responsible for ensuring the mental and physical well-being of 48 students by performing tasks that required teamwork, problem-solving skills, active communication, the promotion of values and effective management.
- Supported the maintenance of the building facilities.
- Learned how to work in a professional environment, to complete tasks in a timely manner, to multitask between school and community assistant workload.

Volunteer experience or extracurricular activities

Licensee & Organizer at TEDxTecdeMtyPuebla

Mar 2016 – Aug 2018

- Responsible for inviting and interacting with speakers.
- Supervised a team of 15 people.
 - Assigned tasks to the team and tracking of results.
 - Managed the student organization relations with the university.
 - Responsible for budget approvals.
- Served customers.
- Acquired the skills of effective management, problem-solving, under-pressure working, effective communication, public speaking, customer service, and sales.

Director at International Student Council

Jan 2018 – Jan 2019

- Ensured the representation of the diverse cultures at the University of Mississippi.
- Addressed concerns of the international community.
- Worked as a liaison for the international community and the University of Mississippi.
- Reinforced the skills of effective communication, problem solving and leadership.

Scholarship and awards

Rensselaer Polytechnique Institute – Research Assistantship

The University of Mississippi – International Academic Excellence Scholarships (AES-INTL)

Languages and certifications

- Spanish Native proficiency
- German Professional working proficiency
- Chinese Limited working proficiency

Skills

- Java
- Database management (SQL, PHP, GO)
- Python
- R (programming language)
- C++/C#