Micah Madrid

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Education

Doctor of Philosophy
Biomedical Engineering
George Washington University
Expected Graduation in 2025

Bachelor of Science, Biology
(Molecular & Biochemistry)
University of La Verne
Completed May 2019

Skills

Programming Languages:
MATLAB R

Software and Design:
Final Cut Pro X
Logic Pro X
Adobe Illustrator CC 2017
Serial Cloner
R Studio

Leadership

President 2017-2018
Synthetic Biology Collegium
Brought unique interdisciplinary graduate representatives to University for students in STEM to network and broaden interests.

VP of Communications, 2017-2018
Associated Students of the University of La Verne (Student Government)

Student Governement Liason
Gay Straight Alliance, 2017-2018
Coordinated LGBTQ+ major events in collaboration with Campus Activities board for education and awareness.

Orientation Week Leader, 2017
Office of Student Life
Provided mentoring for new STEM students during first year transition. Coordinated opening ceremoney cinematics.

Experience

Graduate Research Assistant
The George Washington University - Department of Biomedical Engineering
August 2019 - Current
Exploring cardiac research at various structural levels from cellular to the whole heart studies. Specializing in optical measurements using potentiometric fluorescent probes. Collaborating in validating cardiac devices (including implantable pacemakers, and collocalized electrical & optical sensors), characterizing engineered heart tissues slices (constructed with iPSC CMs), and developing next generation biotechnology such as graphene based opto-electrical stimulation.

Research Lead & Project Coordinator, University of La Verne (ULV)
International Genetically Engineered Machine (iGEM)
January 2018 - May 2019
Designed synthetic biology research project work flow for annual international science competition, oral and poster presentation. Modeled ethical and safe applied system for waste water filtration. Expanded the research team by 20%. Raised annual crowdfunding platform revenue by 40%.

Research Assistant, iGEM at ULV
February 2016 - December 2017
Assisted in senior level research projects by executing work flow and new procedures. Organized laboratory through digital inventory and online notebook.

Peer Tutor, Academic Center, ULV
January 2018 - May 2019
Conducted individual and group tutoring sessions. Helped tutees develop their own best practices for becoming self-sufficient learners through scaffold-based learning. Gathered and reported data for each tutoring session through end-of-session reports. Subjects included: Molecular/Genetics/Cell Biology, General/Organic/Bio Chemistry, Calculus.

Peer Mentor, Guided Pathways to STEM Success, ULV
August 2017 - May 2019
Mentored first & second year, first-generation STEM students. Advised academic registration, career goals, student involvement, and personal health. Instructed students about diversity, self-identity, and living purposefully. Assisted in creating short and long term goals through education. Increased STEM student retention rate for University.

Advanced Laboratory Teaching Assistant, ULV
January 2017 - May 2019
Courses: Cell Biology, Microbiology, Molecular Biology, Biochemistry
Instructed research focused procedures and bio/chemical reagent & specimen preparation. Instructed topics pertaining to protein purification and characterization, enzyme assays, DNA manipulation, tissue culture, microscopy, cell cycle analysis, and biochemical instrumentational methods. Increased students understanding of course material through laboratory application, ensured by semesterly reports and evaluations.