JANETH RODRIGUEZ

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EDUCATION

Master of Science, Bioinformatics Program **Fall 2015**
University of Texas at El Paso

- Major in Bioinformatics
- Related course work: Biology, Mathematics and computational Sciences and cancer research.

Bachelor of Science, Pre-Medicine **May 2013**
University of Texas at El Paso

- Major: Biology
- Minor: Chemistry
- Related course work: General Biology, Organismal Biology, Molecular Cell Biology, Microbiology, Pathogenic Microbiology, Genetics, Biochemistry.

TEACHING EXPERIENCE

Teaching Assistant **Fall 2014 to present**
Biological Sciences, University of Texas at El Paso

- Responsible for 3 sections of "Topics in the Study of Life Laboratory" course.
- Taught students basic weekly labs that covered important general biology topics. Prepared quizzes, labs, assignments and grading for the students.
- Some major labs covered carbohydrates, lipids, nucleic acids, amino acids, osmosis, cellular respiration, photosynthesis, mendelian genetics, and DNA biotechnology.

SHINE Citizenship-*USCIA* **Fall 2009 to 2010**

- Developed citizenship related material to prepare residents for their citizenship test. This included pledge of allegiance, government system, related history about the US and sample questions that might come up in the citizenship test.
- Helped the residents practice their English since most of them did not know how to speak the language fluently.

RESEARCH EXPERIENCE

Pittsburgh Supercomputing Center Summer Internship **Summer 2014**
Bioinformatics, Pittsburgh Supercomputing Center
Project Title: Using bioinformatics tools to identify HSP70 as a potential biomarker in Hepatocellular Carcinoma

- Project involved the analysis of the heat shock protein family through construction, optimization and subsequent minining of a high-accuracy multiple sequence alignment.
- Mentored by the Bioinformatics Supercomputing Center's director in the field of proteomics.

Bioinformatics Training Program **Fall 2010 to Present**
Cancer biology, University of Texas at El Paso
Project Title: Protein-Protein Interactions of HSP70 and HSP60 and other cancer related proteins.
Mentor: Dr. Zhang

- Responsible in working on a project in Dr. Zhang's lab related to Bioinformatics . This project is funded by NIH.
- The purpose is to find protein-protein interactions using the cancer related proteins heat shock 60 and 70, p62 and p90 and use them as biomarkers.
- The databases used in this project involve GRAMM, HPRD, PDB, STRING, BioGRID, SPIDDER, GENBANK, and BLAST. The results found using these databases are then going to be used to design a wet lab to test the target cancer proteins.

TRAINING

Pittsburgh Supercomputing Center Bioinformatics Workshop **Summer 2014**

- Attended different workshops and session for two weeks that helped me gain knowledge in different topics of the bioinformatics field.
- Some of the topics covered in this training were analysis of protein family through the construction, optimization and mining of multiple sequence alignment. De novo assembly of genomic data and transcriptome, mapping assembly and training on computational tools.

Bioinformatics Colloquium workshops **Fall 2013 to Present**

- Distinguished speakers are invited to present their research weekly Bioinformatics. Talks, tutorials, and workshops for professional training on Bioinformatics. Preparation for research presentation, proposals and poster, resumes, cover letters, etiquettes, computational sciences, mathematics and other techniques.

UPBit Training **Fall 2010 to Spring 2014**

- Distinguished speakers are invited to present their research weekly Bioinformatics. Talks, tutorials, and workshops for training on Bioinformatics. Programming training in Perl, R, Mathematica, Python, and MatLab. Learned how to apply mathematical models in to biology. Database training on BLAST, GENBANK, NCBI, and PDB. Preparation for research proposals, posters, presentation s as well as creating a webpage.

Emergency Medical System Scribe **Summer 2013**

- Training in scribing for a certified medical doctor in Providence and Sierra hospitals. Took note on all the medical history and prognosis of the patients that the doctor was seeing. Was exposed to the medical environment from most fields of medicine.

CONFERENCES and PRESENTATIONS

2014 SACNAS National Conference

- Los Angeles, California, October 16th to October 18th
- The SACNAS conference was focuses more on Hispanic minority students trying to pursue a STEM career. I presented my current project to many students and professionals. I expanded my knowledge about different STEM research projects and career opportunities. I also build connections from other professionals that helped expand my career in Bioinformatics.

14th Joint UTEP/NMSU Workshop on Mathematics, Computer Science, and Computational Sciences- Poster presentation

13th Joint UTEP/NMSU Workshop on Mathematics, Computer Science, and Computational Sciences- Poster presentation
12th Joint UTEP/NMSU Workshop on Mathematics, Computer Science, and Computational Sciences- Poster presentation
11th Joint UTEP/NMSU Workshop on Mathematics, Computer Science, and Computational Sciences- PowerPoint presentation

- Gave a presentation of my project's proposal and new results to a mathematician/computer science audience to inform them how biology can be researched using in their fields.
- Interacted with faculty and students with background in

5th Annual Undergraduate Research Conference (URC) at the Interface of Biology and Mathematics **November 2013**

- Presented cancer related project titled "Protein-Protein Interactions of HSP70 and HSP60 and other cancer related proteins" to a mathematical and biological sciences audience.
- The National Institute for Mathematical and Biological Synthesis (NIMBioS) brings together researchers from around the world to collaborate across disciplinary boundaries to investigate solutions to basic and applied problems in the life sciences. NIMBioS is sponsored by the National Science Foundation, the U.S. Department of Homeland Security, and the U.S. Department of Agriculture with additional support from The University of Tennessee, Knoxville.

FELLOWSHIP and AWARDS

Towards EXcellence, Access and Success Grant **Fall 2009 to Spring 2013**

- Awarded for having good academic standing in high school

Mathematical Sciences fellowship **Fall 2010 to Spring 2014**

- Funded by the NIH in order to conduct research under UPBit

LANGUAGUES

English- speak, read and write

Spanish- speak, read and write

CLUBS and ORGANIZATIONS

BioAnnex club **Fall 2013 to Present**

- Events coordinator, Fall 2014
- Member in good standing

Medical Professions organization (MPO) **Spring 2010 to Spring 2013**

- Member in good standing

Undergraduate Bioinformatics Program (UPBit) **Fall 2010 to Spring 2014**

- Member in good standing