Elena Delgado

CONTACT INFORMATION	University of New Mexico Department of Computer Science	`terratyra@unm.edu` `www.cs.unm.edu/tapialab/People/edelgado/`

EDUCATION

University of New Mexico, Albuquerque, NM
Ph.D. in Computer Science   June 2018 - Present
- Advisor: Dr. Lydia Tapia
- Expected Graduation: May 2023

B.S. in Biochemistry   August 2013 - May 2018

RESEARCH EXPERIENCE

University of New Mexico - Tapia Lab, Albuquerque, NM
Graduate Research Assistant   June 2018 - Present
Undergraduate Research Assistant, UNM IMSD Program   May 2017 to May 2018
- Research in computational cost of fitting flexible antibody models to cryo-electron microscopy data. Designed methods to store, sort, and plot timing and parameter data collected during runtime.
- Mentor: Lydia Tapia, Ph.D.

University of New Mexico Health Sciences Center - Ward Lab, Albuquerque, NM
Undergraduate Research Assistant, UNM IMSD Program   May 2016 - May 2017
- Research in the role of relaxin-H2 in cell signaling in the context of autosomal dominant polycystic kidney disease (ADPKD). Used migration assays and Western blotting to see the effects of treatments on fibroblast migration towards normal kidney epithelia *in vitro*.
- Mentor: Heather Ward, Ph.D.

University of New Mexico Hospital - Nursing Research Council, Albuquerque, NM
Undergraduate Research Assistant, UNM Undergraduate Pipeline   May 2014 - July 2014
Network Summer Research Experience
- Collaborated with nurses in the cardiac unit to develop and implement new education protocols and materials for coronary artery bypass graft patients designed to increase pantient/staff communication and reduce length of hospital stay, post-surgery infection rates, and hospital readmission.
- Mentor: Kathy Lopez-Bushnell, FNP, MSN, BSN

ACTIVITIES AND SERVICES

Becoming a Robot Guru 3: Integrating Science, Engineering and Creativity Workshop
Co-organizer   December 8th, 2018
- A full-day robotics and mentoring workshop at the 2018 Workshop on the Algorithmic Foundations of Robotics (WAFR) in Mérida, Mexico. Organized virtual student participation and spoke during a panel about graduate school experiences.

Mark Twain After-School Science Academy
Lead Educator   November 2018 - April 2019
- Taught basics of block programming using Sphero robots two hours per week to 3-5 graders at Mark Twain Elementary School in Albuquerque, NM.

Honors and Awards	• Outstanding Undergraduate Poster Presentation in Computer Science, at the National Conference of the Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS), October 2017
	• University of New Mexico Presidential Scholar, 2013-2017

Presentations

Elena Delgado, Kasra Manavi, and Lydia Tapia. *Computational Costs of Fitting Tomogram Tilt Series of Flexible Molecules with Gaussian Mixture Models.* Poster at the *SACNAS National Conference*, Salt Lake City, UT. (October 2017); Oral Presentation at UNM Biology Research Day, Albuquerque, NM. (March 2018).

Elena Delgado and Heather Ward. *The Role of Relaxin-H2 in Mediation of Cystic Renal Epithelial Recruitment of Fibroblasts.* Poster at the *SACNAS National Conference*, Long Beach CA. (October 2016); Poster at UNM Biology Research Day, Albuquerque, NM. (March 2017)

Skills

Programming Languages:
- Java, Python

3D Modeling and Printing:
- FreeCAD, Blender, Cura
- Lulzbot FDM/FFF Printer Operations and Maintenance

Biochemistry:
- Bright-field and immunofluorescence microscopy
- Culture of human cell lines and bacteria
- DNA extraction, primer design, and sequencing