

Rodolfo Corona Rodriguez

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Education

University of Texas at Austin

Austin, TX

B.S., Computer Science

Expected May 2018

Turing Scholar, McNair Scholar

GPA: 3.84

Honors Thesis: *An Analysis of Using Semantic Parsing for Speech Recognition*

Relevant Coursework: Advanced Geometry Processing (G), Natural Language Processing (G), Robot Learning from Demonstration (G), Artificial Intelligence (H), Introduction to Computer Science Research (H), Undergraduate Reading and Research, Algorithms and Complexity (H), Programming Languages (H), Theory of Computation, Linear Algebra and Matrix Theory, Probability I

G denotes graduate course, H denotes honors course

Cornell, Maryland, Max Planck

Saarbrücken, Germany

Pre-doctoral Research School

August 8 - 13, 2017

Held at Max Planck Institute for Software Systems

Summer school on a variety of topics within computer science research.

Jelinek Memorial Summer School

Pittsburgh, PA

Held at Carnegie Mellon University

June 18 - 30, 2017

Two week summer school for topics in language technologies and machine learning. Part of the Jelinek Memorial Summer Workshop.

Interests

Representation Learning, Multimodal Machine Learning, Natural Language Processing, Computer Vision, Language Grounding, Robotics, Interpretable Machine Learning.

Publications

[1] **Corona, R.**, Thomason, J., and Mooney, R.J., “Improving Black-box Speech Recognition using Semantic Parsing.” *8th International Joint Conference on Natural Language Processing (IJCNLP)*, Taipei, Taiwan, Nov. 2017.

Research

University of Texas at Austin

Austin, TX

Experience

Advised by Raymond J. Mooney

Fall 2015 - Present

Collected speech dataset, annotated with transcripts and semantic forms, and researched use for semantic parsing in speech recognition. Also worked on projects at intersection between NLP and robotics, as well as NLP and computer graphics.

	University of Texas at Austin <i>Advised by Qixing Huang</i> Augmented motion capture dataset with natural language descriptions through crowdsourcing. Working on using deep learning techniques for generating 3D animations of human motion given natural language descriptions.	Austin, TX Fall 2016 - Present
	University of Massachusetts Amherst, REU Intern <i>Advised by Joydeep Biswas</i> Implemented a particle filter for localization of an outdoor robot using wheel odometry and GPS sensors. Collected dataset of robot sensor readings to test particle filter. Inquired into methods for performing outdoor visual localization.	Amherst, MA Summer 2016
Research	IJCNLP 2017 <i>Poster presentation</i> <i>Title: Improving Black-box Speech Recognition</i> <i>Using Semantic Parsing</i>	Taipei, Taiwan Nov. 27 - Dec. 2, 2017
Presentations	2017 Gulf Coast Undergraduate Research Symposium <i>10-minute Oral Presentation</i> <i>Title: Improving Black-box Speech Recognition</i> <i>Using Semantic Parsing</i> Outstanding Presentation Award	Rice University Houston, TX November 4, 2017
	2017 SACNAS Conference <i>Poster Presentation</i> <i>Title: Improving Black-box Speech Recognition</i> <i>Using Semantic Parsing</i> Presenter Award in Computer & Information Sciences	Salt Lake City, UT October 19 - 21, 2017
	19th Annual Texas National McNair Research Conference <i>10-minute oral presentation</i> <i>Title: An Analysis of Using Semantic Parsing for Speech Recognition</i>	Denton, TX February 16-19, 2017
Awards	NAACL Scholarship for Jelinek Memorial Summer School College of Natural Sciences Book Award for Academic Excellence <i>Awarded to only 20 UT Austin undergraduates each year.</i> Tracor/Frank McBee, Jr. Scholarship	Summer 2017 Spring 2016 2015 - 2016 Academic Year
Activities	Coding in the Classroom <i>Helped teach elementary school kids to program Lego Mindstorm robots.</i>	2017 - 2018 Academic Year
	RoboCup@Home 2017 <i>Worked on natural language processing components for UT Austin Villa team.</i> Team won 3rd Place	Summer 2017
	EMNLP 2016 <i>Student Volunteer</i>	November 2016
	Undergraduate Research Journal <i>Natural Sciences Assistant Editor</i>	2015 - 2016 Academic Year

Theatre for Dialogue

2014 - 2015 Academic Year

*Interactive theatre for educating UT students
about interpersonal and relationship violence.*

Project M.A.L.E.S.

Fall 2014

Mentored at-risk high school students in the Austin area for college-readiness.