Rodolfo Corona Rodriguez

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Education

University of California Berkeley — Berkeley, CA
PhD in Computer Science — Starting Fall 2019

University of Amsterdam — Amsterdam, Netherlands
Fulbright Student Research Grant — August 2018 - June 2019

University of Texas at Austin — Austin, TX
B.S., Computer Science — 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 Experience

University of Amsterdam — Amsterdam, Netherlands
Advised by Zeynep Akata — Fall 2018 - Spring 2019
Research in explainable artificial intelligence (XAI), particularly in the area of multiagent systems at the intersection between computer vision and NLP.

University of Texas at Austin — Austin, TX
Advised by Raymond J. Mooney — Fall 2015 - Spring 2018
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 — Austin, TX
Advised by Qixing Huang — Fall 2016 - Spring 2018
Augmented motion capture dataset with natural language descriptions through crowdsourcing. Worked on using deep learning techniques for generating 3D animations of human motion given natural language descriptions.

University of Massachusetts Amherst, REU Intern — Amherst, MA
Advised by Joydeep Biswas — Summer 2016
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.

Research Presentations

IJCNLP 2017 — Taipei, Taiwan
Poster presentation — Nov. 27 - Dec. 2, 2017
Title: Improving Black-box Speech Recognition Using Semantic Parsing

2017 Gulf Coast Undergraduate Research Symposium — Rice University
10-minute Oral Presentation — Houston, TX
Title: Improving Black-box Speech Recognition Using Semantic Parsing — November 4, 2017
Outstanding Presentation Award

2017 SACNAS Conference — Salt Lake City, UT
Poster Presentation — October 19 - 21, 2017
Title: Improving Black-box Speech Recognition Using Semantic Parsing
Presenter Award in Computer & Information Sciences

19th Annual Texas National McNair Research Conference — Denton, TX
10-minute oral presentation — February 16-19, 2017
Title: An Analysis of Using Semantic Parsing for Speech Recognition

Honors

Berkeley Chancellor's Fellowship — Fall 2019
UT Austin College of Natural Sciences Research Excellence Award — Spring 2018
NAACL Scholarship for Jelinek Memorial Summer School — Summer 2017
UT Austin College of Natural Sciences Book Award for Academic Excellence — Spring 2016
Tracor/Frank McBee, Jr. Scholarship — 2015 - 2016 Academic Year

Activities

Coding in the Classroom — 2017 - 2018 Academic Year
Helped teach elementary school kids to program Lego Mindstorm robots.

RoboCup@Home 2017 — Summer 2017
Worked on natural language processing components for UT Austin Villa team.
Team won 3rd Place

EMNLP 2016 — November 2016
Student Volunteer

Undergraduate Research Journal — 2015 - 2016 Academic Year
Natural Sciences Assistant Editor

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.