Ryan Moreno

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PERSONAL STATEMENT

My career goals are (1) to further foundational knowledge in computational theory, specifically complexity theory, through research and collaborations and (2) to empower others through teaching and mentorship. With these goals in mind, I aim to become a CS theory professor.

EDUCATION

University of Southern California May 2020
Bachelor of Science in Computer Science 3.99 GPA
Minor in English

AWARDS

- Trustee Scholar Full-Tuition Scholarship (institutional award; 117 awarded) Spring 2016
- National Merit Scholar (national award; 0.475% acceptance) Spring 2016
- Viterbi Fellow (departmental award) Spring 2016
- W.V.T Rusch Undergraduate Engineering Honors Program (departmental award) Spring 2016
- Dean's List (institutional award) Fall 2016 - present

RESEARCH EXPERIENCE

USC Intelligence and Knowledge Discovery Research Lab Sep 2019 - present
Merit Research Fellow

- Designed novel distantly-supervised machine learning techniques that use trigger phrases to recognize named entities in sentences

USC Undergraduate Honors Thesis Sep 2018 - present
Advised by Dr. Xiang Ren

- Completed a literature review of rule-based poetry generation and deep learning techniques for creative image and sound generation
- Created and implemented a proposal to use deep learning for automated poetry generation
- Presented my proposal at the Viterbi Student Speaker Symposium

USC Interaction Lab Jan 2017 - May 2017
Merit Research Fellow

- Developed socially-assistive robots to teach social skills to children with autism in a non-intimidating environment

Oregon State University Walker Lab Jun 2015 - Aug 2015
Research Intern

- Fabricated microfluidic devices to measure extensional viscosity using 3D printing, photolithography, and soft lithography
- Presented at the Apprenticeships in Science and Engineering Symposium

TEACHING EXPERIENCE

USC Viterbi Teaching Staff Aug 2017 - present

Undergraduate Teaching Assistant

CSCI 103: Introduction to Programming

- Taught weekly lab sections, held office hours, graded assignments, and proctored and graded exams

CSCI 170: Discrete Methods in Computer Science

- Taught weekly discussion sections, created course content and supplemental materials, held office hours, graded assignments, and proctored and graded exams

CSCI 270: Introduction to Algorithms and the Theory of Computing

- Taught weekly discussion sections, created course content and supplemental materials, held office hours, graded assignments, and proctored and graded exams

K-12 Tutoring and Classroom Assistance Aug 2016 - present

See "service" section below

INDUSTRY EXPERIENCE

Microsoft May 2019 - Aug 2019

Software Development Intern

- Created a feature supporting the import of Office documents into the Microsoft Whiteboard App (released to the public October 2019)
- Spanned product management, design, business operations, and software development
- Created code actions for Q# (Microsoft's Quantum language) within VS Code as a hackathon project

Facebook May 2018 - Jul 2018

Software Development Intern

- Implemented a new approach to app event tracking within Facebook's software development kit for iOS apps
- Worked server-side and app-side for full stack development
- Designed a new timeline privacy setting as a hackathon project

Metro Paws May 2017 - Jul 2017

Product Design Intern

- Researched, interviewed, and selected alternate manufacturing facilities
- Redesigned a doggy bag dispenser and designed a cat bed and display using AutoCAD
- Researched alternate, eco-friendly materials

USC 3D4E Jan 2017 - May 2017

Lab Tech

- Held weekly lab hours to assist members with 3D printing

PRESENTATIONS

- Ryan Moreno. *Automated Poetry Generation using Deep Learning*. Viterbi Student Speaker Symposium, University of Southern California. November 2019.
- Ryan Moreno. *Introduction to Secure Mutli-Party Computation*. Cryptography: Secure Communication and Computation, University of Southern California. November 2019.

- Ryan Moreno. *Fabrication of Microfluidic Devices for Advanced Rheological Measurements*. Apprenticeships in Science and Engineering Symposium, Portland, OR. August 2015.

CONFERENCES

- Out for Undergrad: LGBTQ+ tech conference — Sep 2018
- AthenaHacks: *received runner-up for best iOS app* — Oct 2017
  - Created a "choose your own adventure" iOS app to teach children about bullying

TECHNICAL SKILLS

- *Programming Languages:* C++, C#, PHP, Java *(intermediate)*
- *Programming Languages:* Obj-C, Python, Prolog, Racket, JavaScript *(basic)*
- *CS Skills:* SQL, Networking *(basic)*, LaTeX *(intermediate)*
- *Engineering Skills*: Solidworks, CAD, 3D Printing, Woodworking, Machining, Welding *(intermediate)*

SERVICE

USC Troy Camp — Aug 2018 - present

Counselor and Mentor

- *TC Leads:* tutored and mentored high school students weekly
- *Elementary Tutoring:* tutored elementary school students weekly
- *Elementary Programming:* taught dance, PE, and sports programs
- *Summer Camp:* led a cabin of 4th graders during a week-long sleepaway camp

USC Joint Educational Program — Aug 2016 - Dec 2016

Classroom Assistant — Aug 2017 - Dec 2017

- Assisted in an 8th grade math class
- Taught a mini-course on poetry in a 5th grade English class

USC Project 32 — Jan 2017 - May 2017

Classroom Assistant

- Assisted in a 12th grade study hall for students at risk of not graduating

USC Robogals — Jan 2017 - Dec 2017

Events Chair

- Engaged elementary and middle school students in STEM through Lego robotics and other workshops

INTERESTS

USC Triathlon Team, USC Outdoors Club, Ultimate Frisbee, Piano