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   3.99 GPA
Major in Computer Science, 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, Undergraduate Honors Thesis
- Implemented novel distantly-supervised machine learning techniques that use trigger phrases to recognize named entities in sentences
- Leveraged auxiliary learning to increase the effectiveness of neural networks in recognizing named entities by training towards multiple goals

USC WRIT 340: Advanced Writing for Engineers   Sep 2018 - Dec 2018
Research Proposal
- Completed a literature review of rule-based poetry generation and deep learning techniques for creative image and sound generation
- Developed a proposal to use deep learning for automated poetry generation
- Presented the 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* — Apr 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
  - Led workshops in topics left out of school curriculums such as financial literacy and postgraduate opportunities
- **Elementary Programming**
  - Tutored and mentored elementary school students weekly
  - Taught after school dance, PE, and sports programs
- **Summer Camp**
  - Led a cabin of ten 4th grade boys during a week-long sleep away camp
  - Hosted monthly events for these same ten students during the school year

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 engineering workshops

INTERESTS
USC Triathlon Team, USC Outdoors Club *(guide)*, Creative Writing *(published)*, Piano