DAVID PORFIRIO
CURRICULUM VITAE, OCTOBER, 2019

University of Wisconsin–Madison
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RESEARCH INTERESTS

I am interested in applying **formal methods** to the design of programs for **social robots**. My work spans using **formal verification** and **program synthesis** to assist designers in constructing interactions between these robots and end-users, and using **program repair** to automatically fix these interactions.

EDUCATION

PhD	University of Wisconsin–Madison (UW–Madison), Madison, WI, USA Computer Sciences	2018-present
MSc	UW–Madison, Madison, WI, USA Computer Sciences	2016-2018
BS	University of Arizona (UA), Tucson, AZ, USA Double degree (hon) in computer science and physiology Minor in mathematics Summa cum laude	2011-2016

RESEARCH EXPERIENCE

Doctoral Research 2018-present
University of Wisconsin–Madison (UW–Madison), Madison, WI, USA
Computer Sciences

Undergraduate Senior Thesis 2016-2018
UW–Madison, Madison, WI, USA
Computer Sciences

Undergraduate Research 2016-2018
UW–Madison, Madison, WI, USA
Computer Sciences

Undergraduate Research 2016-2018
University of Arizona (UA), Tucson, AZ, USA
Double degree (hon) in computer science and physiology
Minor in mathematics
Summa cum laude

FELLOWSHIPS, HONORS, and AWARDS

Heidelberg Laureate Forum 2019
Invited to attend as a young researcher

Best Paper Award 2018
UIST '18

NSF Graduate Research Fellowship 2017

Advanced Opportunity Fellowship 2016
Selected by the UW–Madison Computer Sciences Department

Excellence in Undergraduate Research Award 2016
Selected by the UA Department of Computer Science

Galileo Circle Scholar 2016
Selected by the UA Department of Computer Science

National Hispanic Scholar 2015
Selected by the National Hispanic Recognition Program

Dean's List with Distinction 2011
Awarded during six semesters at UA

PUBLICATIONS

Porfirio, D., Fisher, E., Sauppé, A., Albarghouthi, A., & Mutlu, B. (2019, October). Bodystorming Human-Robot Interactions. In Proceedings of the 32nd Annual ACM Symposium on User Interface Software and Technology (pp. 479-491). ACM.

Porfirio, D., Sauppé, A., Albarghouthi, A., & Mutlu, B. (2019, March). Computational Tools for Human-Robot Interaction Design. In 2019 14th ACM/IEEE International Conference on Human-Robot Interaction (HRI) (pp. 733-735). IEEE.

Porfirio, D., Sauppé, A., Albarghouthi, A., & Mutlu, B. (2018, October). Authoring and verifying human-robot interactions. In The 31st Annual ACM Symposium on User Interface Software and Technology (pp. 75-86). ACM.

Xiong, K., McEntee, J. P., **Porfirio, D. J.**, & Masel, J. (2017). Drift barriers to quality control when genes are expressed at different levels. Genetics, 205(1), 397-407.

Shumway, K. R., **Porfirio, D. J.**, & Bailey, E. F. (2015). Phonation-related rate coding and recruitment in the genioglossus muscle. Experimental brain research, 233(7), 2133-2140.

POSTERS

Porfirio, D., Sauppé, A., Albarghouthi, A., & Mutlu, B. (2019) Computational Tools for Human-Robot Interaction Design, ACM/IEEE International Conference on Human-Robot Interaction; Daegu, South Korea

Porfirio, D., Sauppé, A., Albarghouthi, A., & Mutlu, B. (2017) Construction and Formal Verification of Human-Robot Interaction Designs, The Human Computer Interaction Consortium 2017 Workshop; Pajaro Dunes, CA

Karlie R. Shumway, **David J Porfirio**, E. Fiona Bailey (2014) Force Regulation in cranial and spinal motoneuron pools, 25th Annual Undergraduate Biology Research Conference; Tucson, AZ

TEACHING EXPERIENCE

Teaching Assistant, UA Summer 2015
Duties: holding office hours and grading programming assignments
CSC 352, Systems Programming and Unix

Section Leader, UA Fall 2014 - Spring 2015
Duties: teaching lab sessions, holding office hours, and grading assignments
CSC 245, Introduction to Discrete Structures
CSC 227, Program Design and Development

OUTREACH

Grandparents University 2018-present
Instructor
Co-taught social robotics lecture and lab sessions geared towards children and their grandparents.

UA Mortar Board Senior Honor Society 2014-2015
Member
Performed community service and various times during membership.

Tucson Medical Center 2012-2013
Worked over 200 hours in the Pediatrics and Labor and Delivery Departments, assisting nurses and visitors