DAVID PORFIRIO

CURRICULUM VITAE, FEBRUARY, 2018

University of Wisconsin—Madison
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RESEARCH INTERESTS

I am interested in applying **formal methods** to the design of socially robust **human-robot interactions**. My work spans using **formal verification** and **program synthesis** to assist designers in constructing these interactions, and using **program repair** to automatically fix these interactions.

EDUCATION

PhD	University of Wisconsin–Madison (UW–Madison), Madison, WI, USA Computer sciences	2016-present
MSc	University of Wisconsin–Madison (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

PhD Research 2016-present
UW–Madison Computer Sciences Department
Drs. Bilge Mutlu, Aws Albarghouthi, Allison Sauppé

Undergraduate Senior Thesis 2015-2016
UA Department of Computer Science
Dr. John Kececioglu

Undergraduate Research 2014
UA Department of Ecology and Evolutionary Biology
Dr. Joanna Masel

Undergraduate Research 2013-2014
UA Department of Physiology
Dr. E Fiona Bailey

FELLOWSHIPS, HONORS, and AWARDS

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

2015

Galileo Circle Scholar
Selected by the UA Department of Computer Science

National Hispanic Scholar 2011
Selected by the National Hispanic Recognition Program

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

PUBLICATIONS

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.

Shumway, K., **Porfirio, D.**, & Bailey, F. (2014). Motor unit recruitment patterns in genioglossus and first dorsal interosseous (1102.4). The FASEB Journal, 28(1_supplement), 1102-4.

POSTERS

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

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

OUTREACH

Grandparents University 2018
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 at various times during membership.

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