Sebastian Samuel Rodriguez

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EDUCATION

University of Illinois at Urbana-Champaign, Champaign, Illinois — Anticipated May 2022
College of Engineering
Doctor of Philosophy in Computer Science
Focus on Human Computer Interaction
Adviser: Alex Kirlik, PhD

Northwestern University, Evanston, Illinois — Jun 2016
Robert R. McCormick School of Engineering and Applied Sciences
Bachelor of Science in Computer Engineering

Research Interests
Human Computer Interaction, Tangible/Wearable Interfaces, Assistive Technology, Human Factors

RESEARCH EXPERIENCE

Beckman Institute for Advanced Science and Technology, Urbana, Illinois — Sep 2017 – Present
Graduate Research Assistant, Adviser: Alex Kirlik, PhD
- Researching the age-technology intuition gap between the elderly population and everyone.

Coordinated Science Lab, Urbana, Illinois — Aug 2016 – Sep 2017
Research Assistant, Adviser: Alex Kirlik, PhD
- Developed a first-version application program interface for devices communicating with CSL's ASPIRE, a framework which employs drones to help the elderly retain independence in their homes.

Center for Connected Learning, Evanston, Illinois — Aug 2015 – Jun 2016
Research Assistant, Adviser: Corey Brady, PhD
- Programming framework and research-based activities for the hackable Electronic Conference Badge, aimed towards introducing computer science and computational thinking in teenagers.

Smart Grid Demonstration and Research Investigation Lab, Pullman, Washington — May 2015 – Aug 2015
Research Intern, Adviser: Anurag Srivastava, PhD
- Designed a .NET application that analyzes real-time phasor measurement unit data from smart power grids and detects critical trends to avoid performance loss and maintain optimal power throughput.

TEACHING EXPERIENCE

Northwestern University
- EECS 395: Tangible Interaction Design and Learning, Teaching Assistant — Spring 2016
- EECS 330: Human Computer Interaction, Teaching Assistant — Winter 2016
- EECS 111: Fundamentals of Computer Programming I, Teaching Assistant — Fall 2015
- EECS 214: Data Structures and Data Management, Teaching Assistant — Spring 2015

PROFESSIONAL EXPERIENCE

Northwestern University Information Technology, Evanston, Illinois — Jun 2014 – Jun 2016
Lead Helpdesk Analyst, Professional Development Coordinator
- Collaborated with a team of 13 to manage the daily operations of the IT Support Center.

- Prepared and presented professional development and policy review lectures every working week.
- Correspond with Northwestern University to troubleshoot technical problems on a variety of systems.

MILITARY EXPERIENCE

United States Naval Reserve Officer Training Corps, Evanston, Illinois   Sep 2012 – Sep 2013
Midshipman, Computer Systems Coordinator
- Developed training, accountability, health, welfare, mentoring and discipline of naval officer candidates.
- Maintained a private network system and a public website for use by high-ranking military officials.
- Designed forms and spreadsheets for logistic officers to maintain accountability of daily activities.

PUBLICATIONS

1. Brady C., Weintrop D., Anton G., Orton K., **Rodriguez S.** & Wilensky U. (2016). *All Roads Lead to Computing: Making, Participatory Simulations, and Social Computing as Pathways to Computer Science,* IEEE Transactions on Education.

PRESENTATIONS AND CONFERENCES

Summer Undergraduate Research Symposium 2015, Pullman, Washington   Aug 2015
- RTPMU: A Multi-Threaded Real-Time Data Validator for Phasor Measurement in Smart Electric Grids

AWARDS AND HONORS

University of Illinois at Urbana-Champaign
Graduate College Distinguished Fellowship, awarded for 2016-2020
Illinois Sloan Scholar, Alfred P. Sloan Foundation's Minority Ph.D. (MPHD) Program, awarded for 2016-17

Northwestern University
Commencement 2016 Student Marshal
Northwestern Magazine, Summer 2016 issue, featured on *Trailblazers* (Seniors to Follow)
Dean's List – Winter 2015, Spring 2015 (High Honors)
Northwestern Naval Reserve Officer Training Corps (NROTC) Grant
4-Year Naval Reserve Officer Training Corps (NROTC) Scholarship

PROFESSIONAL ORGANIZATIONS

University of Illinois at Urbana-Champaign
Illini Ritmo y Sabor, *Treasurer*   Aug 2017 – Present
Society of Hispanic Professional Engineers, *General Member*   Aug 2016 – Present

Northwestern University
Society of Hispanic Professional Engineers, *Vice President of Student Affairs*   Sep 2014 – Mar 2016
Council of Latino Admission Volunteers for Education (C.L.A.V.E), *Student Volunteer*   Dec 2013 – Sep 2015
New Student and Family Programs, Northwestern University, *Peer Adviser*   Jan 2013 – Apr 2014
United States Naval Reserve Officer Training Corps, *Midshipman*   Aug 2012 – Sep 2013

SKILLS

Programming: C/C++/C#, Java, Python, x86 Assembly, VHDL, Arduino, HTML/JavaScript, PHP, MATLAB
Software: Microsoft Office, Windows/Unix Environment, AutoCAD, Quartus II/ModelSim, Visual Studio IDE
Electronics: Microprocessors (Arduino, RaspPi), Cyclone FPGAs, Wiring/Soldering/Probing Electronics

Language: Fluent in reading, writing, and speaking Spanish