

# Sebastian S. Rodriguez

## Curriculum Vitae

University of Illinois at Urbana-Champaign  
Human-Computer Interaction Group  
[srodri44@illinois.edu](mailto:srodri44@illinois.edu)  
[sebas.me](http://sebas.me)

### RESEARCH INTERESTS

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Human-computer interaction, human-automation/AI interaction, explainable AI, virtual reality/augmented reality, human factors, cognitive science, game design and development

### EDUCATION

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2016 – Present **University of Illinois at Urbana-Champaign, Champaign, IL**

*Doctor of Philosophy in Computer Science*

Advisor: Alex Kirlik

2012 – 2016 **Northwestern University, Evanston, IL**

*Bachelor of Science in Computer Engineering*

### EXPERIENCE

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2018 – Present **U.S. Army CCDC Army Research Laboratory, Aberdeen, MD**

Research Fellow (Advisors: Derrik Asher and Erin Zaroukian)

Investigating the effects of complacency and emergent collaboration in heterogeneous teams consisting of humans and autonomous agents [C-2, 3, 4, 5, 6]

2018 **U.S. Army CCDC Army Research Laboratory, Playa Vista, CA**

Research Intern (Host: James Schaffer)

Investigated the effects of complacency in knowledge and judgment for recommendation and game-based systems [C-1]

2016 – 2018 **University of Illinois at Urbana-Champaign, Urbana, IL**

Graduate Research Assistant (Advisor: Alex Kirlik)

Developed an API for devices communicating with a ROS framework which controls aerial drones in coordinated behavior to help elderly users retain independence

2015 – 2016 **Northwestern University, Evanston, IL**

Research Assistant (Advisor: Corey Brady)

Programmed hackable hardware for teaching network topology through participatory simulations in Chicago middle and high schools [J-1]

2015 **Washington State University, Pullman, WA**

Research Experience for Undergraduates Intern (Advisor: Anurag Srivastava)

Implemented fault and failure detection algorithms for phasor measurement units in smart electric grids

## SKILLS

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**Quantitative Methods:** inferential and summary statistics, mediation analysis, machine learning

**Qualitative Methods:** survey design, user interviews

**Programming:** C# (Unity), Python, C/C++, Java

**Data Analysis:** R, pandas

## PEER-REVIEWED PUBLICATIONS

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- C-6 Emergent Heterogeneous Strategies from Homogeneous Capabilities in Multi-Agent Systems  
Fernandez R., Zaroukian E., Humann J., Perelman B., Dorothy R., **Rodriguez S.**, Asher D. (2020)  
World Congress in Computer Science, Computer Engineering, and Applied Computing (CSCE) Proceedings
- C-5 Multi-Agent Collaboration with Ergodic Spatial Distributions  
Asher D., Zaroukian E., Perelman B., Perret J., Fernandez R., Hoffman B., **Rodriguez S.** (2020)  
Society of Photo-Optical Instrumentation Engineers (SPIE) Defense + Commercial Sensing Proceedings
- C-4 Measuring Complacency in Humans Interacting with Autonomous Agents in a Multi-Agent System  
**Rodriguez S.**, Chen J., Deep H., Lee J., Asher D., and Zaroukian E. (2020)  
Society of Photo-Optical Instrumentation Engineers (SPIE) Defense + Commercial Sensing Proceedings
- C-3 Multi-Agent Coordination Profiles Through State Space Perturbations  
Asher D., Garber-Barron M., **Rodriguez S.**, Zaroukian E., and Waytowich N. (2019)  
International Conference on Computational Science and Computational Intelligence (CSCI) Conference Proceedings
- C-2 Algorithmically Identifying Strategies in Multi-Agent Game-Theoretic Environments  
Zaroukian E., **Rodriguez S.**, Barton S., Schaffer J., Perelman B., Waytowich N., Hoffman B., and Asher D. (2019)  
Society of Photo-Optical Instrumentation Engineers (SPIE) Defense + Commercial Sensing Proceedings
- C-1 Knowledge Complacency and Decision Support Systems **[Best Paper Award]**  
**Rodriguez S.**, Schaffer J., O'Donovan J., and Höllerer T. (2019)  
Cognitive and Computational Aspects of Situation Management (CogSIMA) Proceedings
- J-1 All Roads Lead to Computing: Making, Participatory Simulations, and Social Computing as Pathways to Computer Science  
Brady C., Weintrop D., Anton G., Orton K., **Rodriguez S.**, and Wilensky U. (2016)  
IEEE Transactions on Education Journal

## TEACHING EXPERIENCE

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- SP20, FA20 **CS 225: Data Structures (Head TA)**  
Department of Computer Science, University of Illinois at Urbana-Champaign
- FA18 **CS 498: Experimental Methods of Human Computer Interaction**  
Department of Computer Science, University of Illinois at Urbana-Champaign

- SP16 **EECS 395: Tangible Interaction Design and Learning**  
Department of Electrical Engineering and Computer Science, Northwestern University
- WI16 **EECS 330: Human Computer Interaction**  
Department of Electrical Engineering and Computer Science, Northwestern University
- FA15 **EECS 111: Fundamentals of Computer Programming I**  
Department of Electrical Engineering and Computer Science, Northwestern University
- SP15 **EECS 214: Data Structures and Data Management**  
Department of Electrical Engineering and Computer Science, Northwestern University

## MENTORING

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- 2020 **Sarah Shaw**  
UIUC BS student in Computer Science + Statistics
- 2020 **Ziyuan Wei**  
UIUC BS student in Computer Science + Statistics
- 2019 **Jaewook Lee**  
UIUC BS student in Computer Science
- 2019 **Jacqueline Chen**  
UIUC BS student in Computer Science
- 2019 **Harsh Deep**  
UIUC BS student in Computer Science + Statistics
- 2017 **Wyatt McAllister**  
UIUC MS in Electrical and Computer Engineering, 2018 (next: UIUC PhD)
- 2017 **Ambika Dubey**  
UIUC BS in Computer Science, 2018 (next: Microsoft)

## AWARDS AND HONORS

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- 2019 **U.S. Army CCDC Army Research Laboratory Journeyman Fellowship**  
Prestigious 1-year fellowship to progress dissertation research with ARL
- 2019 **IEEE CogSIMA 2019 Best Paper Award**  
Knowledge Complacency and Decision Support Systems [C-1]
- 2016 **Graduate College Distinguished Fellowship**  
University award to support graduate studies with 2 years of funding
- 2016 **Illinois Sloan Scholar, Alfred P. Sloan Foundation's Minority PhD Program**  
Merit-based award for incoming minority PhD students

## PROFESSIONAL SERVICE

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- Reviewer** *Conferences*
- CHI PLAY 2019, 2020
- Journals*
- Human Factors and Ergonomics Society
  - Production and Operations Management
- Development** Society of Hispanic Professional Engineers, Member  
UIUC Chapter

Society of Hispanic Professional Engineers, Vice President  
NU Chapter

## **INSTITUTIONAL SERVICE**

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- Education** UIUC Computer Science Graduate Ambassador 2016, 2017, 2018  
Alfred P. Sloan Mentorship Program 2017
- Planning** Alfred P. Sloan Mini-Conference 2019

Last updated: September 9, 2020