

Laura Stegner

Curriculum Vitae — February 2023

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<https://laurastegner.com>

EDUCATION

- 2019–Current **PhD in Computer Sciences**, *University of Wisconsin–Madison (UW–Madison)*, USA, Research area: Human-Robot Interaction, Advisor: Dr. Bilge Mutlu
- 2019–2022 **MS in Computer Sciences**, *UW–Madison*, USA
- 2014–2019 **BS in Electrical Engineering**, *University of Cincinnati (UC)*, Ohio, USA
Summa Cum Laude, Distinguished University Honors Scholar
- Fall 2018 **Exchange Student**, *Newcastle University*, Newcastle upon Tyne, UK
Full semester academic exchange

RESEARCH EXPERIENCE

- 2019–Current **Research Assistant**, *People and Robots Lab, UW–Madison*, USA
Programming techniques for assistive robots in care settings
- 2018–2019 **Research Intern**, *Max Planck Institute for Software Systems (MPI-SWS)*, Kaiserslautern, Germany, (Summers only), PI: Dr. Rupak Majumdar
Creating parameterized test environments for autonomous car controllers
- 2017–2018 **Research Co-op**, *Novel Device Lab / Eccrine Systems, Inc.*, Cincinnati, Ohio, USA, (part time), PI: Dr. Jason Heikenfeld
Developing and characterizing a sweat flow-rate sensor

AWARDS and FUNDING

- 2020 **National Science Foundation Graduate Fellowship**, *3 years of full PhD funding and 2 years of additional support*
- 2019 **LUCID Training Program**, *2 years of full PhD funding*
- 2019 **Presidential Leadership Medal of Excellence**, *Recognized for outstanding service and leadership during undergraduate studies*
- 2018 **Rowe Scholarship Fund**, *Full support for exchange semester at Newcastle University*
- 2018 **DAAD RISE Germany Scholar**, *3 months research support at MPI-SWS*
- 2017 **Mantei/Mae Award**, *Selected by UC Electrical Engineering and Computer Science Department, also awarded in 2018 and 2019*

PUBLICATIONS

- 2023 **Situated Participatory Design: A Method for In Situ Design of Robotic Interaction with Older Adults**
L. Stegner, E. Senft, and B. Mutlu
Accepted at CHI '23, April 23-28, 2023, Hamburg, Germany

Sketching Robot Programs On the Fly

D. Porfirio, **L. Stegner**, M. Cakmak, A. Sauppé, A. Albarghouthi, and B. Mutlu
Accepted at HRI '23, March 13-16, 2023, Stockholm, Sweden

2022 **Designing for Caregiving: Integrating Robotic Assistance in Senior Living Communities**

L. Stegner and B. Mutlu

Designing Interactive Systems Conference (DIS '22)

2021 **Figaro: A Tabletop Authoring Environment for Human-Robot Interaction**

D. Porfirio, **L. Stegner**, M. Cakmak, A. Sauppé, A. Albarghouthi, and B. Mutlu

Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21)

Paracosm: A test framework for autonomous driving simulations

R. Majumdar, and A. Mathur, M. Pirron, **L. Stegner** and D. Zufferey

International Conference on Fundamental Approaches to Software Engineering (FASE 2021)

POSTERS and PRESENTATIONS

2018 **Programming-Direct Manipulation Integration for Simulation Environments**

R. Majumdar, and A. Mathur, M. Pirron, **L. Stegner** and D. Zufferey

Presented at the 2018 RISE Germany Meeting, Heidelberg, Germany. July 2018.

2016 **Determination of manganese using cathodic stripping voltammetry and lead using anodic stripping voltammetry**

L. Stegner, W. Kang, E. Haynes, W.R. Heineman, I. Papautsky

Poster session presented at the 2016 American Chemical Society Central Regional Meeting, Covington, Kentucky. May 2016.

2014 **Using Kepler data to classify the evolutionary state of red giant stars**

D. Miller, [and 20 others, including D. Ciardi, S. Howell, and **L. Stegner**]

Poster session presented at the 2014 American Astronomical Society Meeting, Washington, DC. Jan 2014.

TEACHING

2022 **Guest Lecturer**, *UW-Madison SOC WORK/SOC 422: Social Issues in Aging*

Design considerations for robots in senior living communities

2022 **Session Instructor**, *UW-Madison Grandparents University*

Co-organized and led interactive lab on social robotics for children and their grandparents

2021 **Workshop Facilitator**, *UW-Madison Psychology Research Experience Program*

Created hands-on virtual workshop introducing natural language processing with Python

2019 **Teaching Assistant**, *UC College of Engineering and Applied Science*

Led weekly discussion sessions for project-based introductory engineering course

- 2019 **Lab Instructor**, *UC Department of Electrical Engineering and Computer Science*
Designed and led labs for intro programming course using the Zumo32U4 bots from Polulu
- 2017 **Peer Mentor**, *UC Center for First Year Experience*
Planned and taught weekly classes for freshman engineers to ease college transition

MENTORING

UNDERGRADUATES

- 2023-Current **Sai Akarsh Ache**, *Developing a taxonomy for social robot personalization*
- 2022-Current **Julian Zhu**, *Mobile app development for managing resident profiles*
- 2021-2022 **Zach Potter**, *Mobile app development for care robot programming*
- 2021 **Kartikeye Khanna**, *Web-based controller for Stretch robot from Hello-Robot*
- 2021 **Emma Liu**, *Autonomous mapping with Stretch robot from Hello-Robot*

OUTREACH and SERVICE

- 2021-Current **People and Robots Lab Tours**, *3-5 annually*
- 2020-Current **Treasurer**, *Student Association for Computing Machinery (ACM)*
- 2017-2019 **Vice President**, *Eta Kappa Nu Honor Society*
- 2014-2018 **Math and Reading Tutor**, *Cincinnati Public Schools*

INDUSTRY EXPERIENCE

- 2017 **Protection and Controls Intern**, *American Electric Power*, Columbus, Ohio, USA,
(Jan–May 2017)
Assisted with detailed scoping for substation networking projects; Performed quality review of schematic and wiring diagrams
- 2016 **Manufacturing Systems Co-op**, *Sandvik Hyperion*, Worthington, Ohio, USA,
(May–Aug 2016)
Designed method to import data from sister plant into local database
- 2015 **Manufacturing Systems Co-op**, *Sandvik Hyperion*, Worthington, Ohio, USA,
(Aug–Dec 2015)
Developed database modules and end-user software to digitize process improvement tracking