

Anya Bouzida

Computer Science and Engineering
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Research Interests

My research interests lie in the fields of HCI, HRI, and Human-Centered AI. The goal of my research is to define the needs for, and develop adaptive systems alongside the people who will be using them. The scope of my research pertains to individuals with cognitive impairments, notably people with mild cognitive impairment and dementia.

Education

University of California, San Diego June 2026
(Expected)
Ph.D., Computer Science and Engineering
Advisor: Dr. Laurel D. Riek
University of California, San Diego; Summa Cum Laude June 2021
B.S., Cognitive Science specializing in Machine Learning & Neural Computation
Minor, Computer Science and Engineering
MiraCosta Community College May 2019
A.A., Liberal Arts – Math and Sciences

Professional Competencies

Programming Languages: Python, Java, C, C++
Python Libraries and DL Frameworks: TensorFlow, PyTorch, NumPy, Pandas, Scikit-learn, Matplotlib, seaborn
Machine Learning Domains: Unsupervised Learning, Supervised Learning, Reinforcement Learning
Mathematics of Machine Learning: Vector Calculus, Linear Algebra, Probability, Statistics
Environments: Linux & UNIX, Git/GitHub Version Control
Spoken Languages: English, French

Publications

[3] **Bouzida, A.***, Kubota, A.*, Cruz-Sandoval D., and Riek, L. D. (2024). CARMEN: A Cognitively Assistive Robot for Personalized Neurorehabilitation at Home. *ACM/IEEE Int'l Conference on Human Robot Interaction (HRI)*.
[Acceptance rate: 24%]

[2] **Bouzida, A.**, Murakami, M., and Riek, L. D. (2024). How People with Mild Cognitive Impairment Reimagine Technology: Addressing Frustration to Promote Cognitive Accessibility. In *The Gerontologist (In submission)*.

[1] Guan, C., **Bouzida, A.**, Oncy-Avila, R., Moharana, S., and Riek, L.D. "Taking an (Embodied) Cue From Community Health: Designing Dementia Caregiver Support Technology to Advance Health Equity". *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems, CHI '21*. pp. 1-24.
[Acceptance rate: 26.3%]

Research Experience

Graduate Research Assistant 2021-Present
Personalizing a Robot Delivered Behavioral Health Intervention

- ♦ System development of a multi-robot system to administer a cognitive behavioral intervention

- ♦ Creating new algorithms to promote long term engagement with a robot delivered cognitive behavioral intervention
- ♦ Data analysis of longitudinal interaction and preference data

Participatory Design with people with mild cognitive impairment

2021-2022

- ♦ Conducted participatory design research with older adults with mild cognitive impairment to critically understand their frustrations and needs from technology
- ♦ Led interviews, co-design sessions, and conducted thorough thematic analysis
- ♦ Generated design guidelines to dramatically improve technology design for this population

Undergraduate Research Assistant

Participatory Design in Dementia Care Contexts

2019-2021

- ♦ Conducted qualitative research within the dementia care community to study how robotics technology should be designed to best assist people with dementia and their caregivers
- ♦ Engaged stakeholders in co-design sessions where a design probe (SpoonBot) was evaluated for its potential ability to aid people with late stage dementia during mealtimes

Awards & Honors

NSF GRFP Fellow

March 2023

CRA-WP Grad Cohort for IDEALS Member

March 2023

Inclusion Fellow, Robotics: Science and Systems

June 2022

CRA-WP Grad Cohort for Women Member

April 2022

Provost Honors, UCSD

Fall 2019, Winter 2020, Spring 2020, Fall 2021, Winter 2021

President's Permanent Honor Roll, MiraCosta College

Spring 2019

President's List, MiraCosta College

Winter 2017, Spring 2018, Spring 2019

Supervisees

Karisma Kumar (B.S. Cognitive Science)

2023-Present

Soyon Kim (B.S. Mathematics - Computer Science)

2023-Present

Megna Anand (M.S. Electrical and Computer Engineering)

2022-Present

Michele Murakami (B.S. Cognitive Science)

2022-Present

Outreach

Robotics Graduate Student Organization

2021-Present

- ♦ *President (2023-Present), Treasurer (2022-2023), Communications (2022-2023)*

- ♦ *Management of university student events as well as community outreach events*

Instructional Assistant - Introduction to Machine Learning II

Spring 2021

- ♦ Guided five student final project groups of 5-6 people each

- ♦ Led group meetings where we solidified the team's research topic, methods, and goals; supported students understanding of course material necessary to have a successful project

- ♦ Held weekly discussions and office hours, reviewed lecture material

- ♦ Graded assignments and provided feedback and optimizations for final projects

Vice President, Tau Sigma Transfer Honors Society

2020-2021

- ♦ Organized social and community building events with local chapter members and the broader transfer community

- ♦ Organized leadership groups, and assigned tasks to leadership members

Academic Service

Reviewer. HRI (2023-2024)