

Zana Bućinca

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Research Interests

Human-AI Interaction; AI-Assisted Decision Making; Responsible AI; Future of Work

Education

- 2019 – 2025 **Harvard University** *Cambridge, MA*
PhD in Computer Science, *GPA: 4.00/4.00*
Thesis: Worker-Centric AI for Decision Support
Advisor: Prof. Krzysztof Z. Gajos
- 2016 – 2019 **Koç University** *Istanbul, Turkey*
MSc in Computer Science and Engineering, *GPA: 3.96/4.00*
Thesis: Incorporating Affect Into Dialog Generation
- 2012 – 2016 **Izmir Institute of Technology** *Izmir, Turkey*
BSc in Computer Engineering, *GPA: 3.89/4.00*
Ranked 1st in the School of Engineering
Thesis: Removing Occluding Objects in Images With Motion Decomposition

Awards & Honors

- 2025 **Best Paper Honorable Mention Award – CHI**
Awarded to top 5% of papers at the ACM CHI conference.
- 2025 **Siebel Scholar**
Grant awarded for academic excellence and demonstrated leadership
- 2024 **Rising Star in AI – University of Michigan**
Recognized by University of Michigan's Artificial Intelligence Laboratory
- 2024 **Rising Star in MS&E – Stanford**
Recognized by Stanford's Management Science and Engineering Department
- 2024 **NextProf Nexus – UMich, UC Berkeley, Georgia Tech**
Selected to attend NextProf, a program designed to prepare diverse and promising faculty candidates for the academic job market.
- 2024 **Top 10 Most Inspiring Women in STEM (Kosovo)**
Recognized by UNDP Kosovo.
- 2022 - 2023 **IBM PhD Fellowship Recipient**

- 2020 **Best Paper Award – IUI**
#1 paper at the ACM Intelligent User Interfaces conference.
- 2023-2025 **Outstanding Reviewer**
Special recognition for outstanding reviews at CHI 2023, CHI 2024, UIST 2024, CHI 2025.
- 2020 **NSF Travel Award Recipient**
Merit based travel grant awarded by NSF to attend ACM IUI Conference (canceled due to COVID-19).
- 2020 **CRA-W Grad Cohort Scholarship Recipient**
(canceled due to COVID-19).
- 2016 - 2018 **Koç University MS Fellowship**
Excellence fellowship awarded by Koç University to only one applicant per year.
- 2012 - 2016 **High Honor Student**
Graduated with the highest GPA in the School of Engineering.
- 2016 **GBYF (Young Brains New Ideas) Second Place Award**
My undergrad thesis won the 2nd place in a competition amongst 250 theses.
- 2012 - 2016 **Turkish Scholarship**
Excellence scholarship awarded by the Turkish government to international students.

Manuscripts Under Review

- 2024 [Offline Reinforcement Learning for Adaptive Support in AI-Assisted Decision-Making](#)
Zana Buçinca, Siddharth Swaroop, Amanda E. Paluch, Susan A. Murphy, Krzysztof Z. Gajos.
 25 pages, 2024 (under review – TOCHI).
- 2024 [AHA!: Facilitating AI Impact Assessment by Generating Examples of Harms](#)
Zana Buçinca, Chau Pham, Maurice Jakesch, Marco Ribeiro, Alexandra Olteanu, Saleema Amershi.
 22 pages, 2024 (under review – TOCHI).

Refereed Journal & Conference Publications

- 2025 [Contrastive Explanations That Anticipate Human Misconceptions Can Improve Human Decision-Making Skills](#)
Zana Buçinca, Siddharth Swaroop, Amanda E. Paluch, Finale Doshi-Velez, Krzysztof Z. Gajos.
 26 pages, In *Proceedings of the CHI Conference on Human Factors in Computing Systems, CHI'25, 2025.*
Best Paper Honorable Mention Award 🏆
- 2025 [Personalising AI Assistance Based on Overreliance Rate in AI-Assisted Decision Making](#)
 Siddharth Swaroop, **Zana Buçinca**, Finale Doshi-Velez, Krzysztof Z. Gajos.
 20 pages, In *Proceedings of the ACM Conference on Intelligent User Interfaces, IUI'25, 2025.*

- 2024 [Optimizing Decision-Maker's Intrinsic Motivation for Effective Human-AI Decision-Making](#)
Zana Buçinca
5 pages, In *Extended Abstracts of CHI Conference on Human Factors in Computing Systems, CHI'24*, 2024.
- 2024 [Accuracy-Time Tradeoffs in AI-Assisted Decision Making under Time Pressure](#)
Siddharth Swaroop, **Zana Buçinca**, Krzysztof Z. Gajos, Finale Doshi-Velez
17 pages, In *Proceedings of the ACM Conference on Intelligent User Interfaces, IUI'24*, 2024.
- 2022 [How Different Groups Prioritize Ethical Values for Responsible AI](#)
Maurice Jakesch, **Zana Buçinca**, Saleema Amershi, Alexandra Olteanu.
20 pages, 2022 ACM Conference on Fairness, Accountability, and Transparency (FAccT), 2022.
- 2021 [To Trust or to Think: Cognitive Forcing Functions Can Reduce Overreliance on AI in AI-Assisted Decision-Making](#)
Zana Buçinca, Maja B. Malaya, Krzysztof Z. Gajos.
21 pages, In *Proceedings of ACM Human-Computer Interaction (CSCW)*, 2021.
- 2020 [Proxy Tasks and Subjective Measures Can Be Misleading in Evaluating Explainable AI Systems](#)
Zana Buçinca*, Phoebe Lin*, Krzysztof Z. Gajos, Elena L. Glassman.
11 pages, In *Proceedings of ACM Conference on Intelligent User Interfaces, IUI'20, Cagliari, Italy*, 2020.
Best Paper Award 🏆
- 2020 [AffectON: Incorporating Affect Into Dialog Generation](#)
Zana Buçinca, Engin Erzin, Yucel Yemez, Metin T. Sezgin
13 pages, in *IEEE Transactions on Affective Computing*, 2020.
- 2017 [Analysis of Engagement and User Experience with a Laughter Responsive Social Robot](#)
Berker B. Turker, **Zana Buçinca**, Engin Erzin, Yucel Yemez, Metin T. Sezgin
5 pages, In *Proceedings of Interspeech: Annual Conference of the International Speech Communication Association*, 2017.
- 2017 [Real Time Audiovisual Laughter Detection](#)
Berker B. Turker, **Zana Buçinca**, Metin T. Sezgin, Yucel Yemez, Engin Erzin
5 pages, In *25th IEEE Signal Processing and Communications Applications Conference*, 2017.

Peer-reviewed Workshop Publications

- 2023 [Adaptive Interventions for Both Accuracy and Time in AI-Assisted Human Decision Making](#)
Siddharth Swaroop, **Zana Buçinca**, Finale Doshi-Velez.
7 pages, 2023 Workshop on AI & HCI at ICML, 2023.

2022 [Beyond End Predictions: Stop Putting Machine Learning First and Design Human-Centered AI for Decision Support](#)
Zana Buçinca, Alexandra Chouldechova, Jennifer Wortman Vaughan, Krzysztof Z. Gajos.
4 pages, 2022 Human-Centered AI Workshop at NeurIPS, 2022.

Grant Writing Experience

2021-2025 **National Science Foundation**
Title: Improving Human-AI Collaboration on Decision-Making Tasks
Role: Contributed to the ideation and writing of the grant that has supported four of my projects.
Grant no: 2107391
Amount awarded: \$1,200,000
PI: Prof. Krzysztof Gajos, *Co-PIs:* Prof. Finale Doshi-Velez, Prof. Elena Glassman

2024-2025 **Office of Naval Research**
Title: Supporting Human Learning in the Context of AI-Assisted Decision-Making
Role: Contributed to the ideation and writing of the grant that has supported two of my projects.
Agreement no: N00014-24-1-2726
Amount awarded: \$400,000
PI: Prof. Krzysztof Gajos

Research Experience

Jul 2019 – Present **Intelligent Interactive Systems Group, Harvard University** [Cambridge, MA](#)
Research Assistant

May – Aug 2022 **FATE, Microsoft Research** [New York, NY](#)
Research Intern
Mentors: Dr. Jennifer Wortman Vaughan & Dr. Alexandra Chouldechova

Jun – Sep 2021 **Adaptive Interactive Systems, Microsoft Research** [Redmond, WA](#)
Research Intern
Mentors: Dr. Saleema Amershi, Dr. Alexandra Olteanu, Dr. Mario Tulio Ribeiro

Sep 2016 – Mar 2019 **Intelligent User Interfaces, Koç University** [Istanbul, Turkey](#)
Research Assistant
Advisor: Prof. Metin Sezgin

Sep 2015 – May 2016 **Visual Intelligence Research Group, Izmir Institute of Technology** [Izmir, Turkey](#)
Undergrad Researcher
Advisor: Prof. Mustafa Ozuysal

Jun – Sep 2015 **Artificial Intelligence and Robotics Lab, Polytechnic University of Milan** *Milan, Italy*
Visiting Researcher
Advisor: Prof. Andrea Bonarini

Teaching Experience

Fall 2020 - present **Teaching fellow, Harvard University**

Fall 2022 & 2023, Computational Science and Engineering Capstone Project
Fall 2020, System Design Project

Sep 2016 - Jan 2019 **Teaching assistant, Koç University**

Fall 2018, Structure and Interpretation of Computer Programs
Spring 2018, Mobile Device Programming
Fall 2017, Programming Language Concepts
Spring 2017, Data Structures and Algorithms
Fall 2016, Artificial Intelligence

Talks, Guest Lectures & Panels

May 2025 Value-Aligned Human-AI Interaction
Max Planck Law Tech & Society initiative (scheduled)

April 2025 Value-Aligned Human-AI Interaction
Apple Research

Mar 2025 Value-Aligned Human-AI Interaction
Keynote speaker at the Workshop on Understanding, Controlling, and Designing Human-AI Interactions
— ETHz & University of Freiburg, Germany

Feb 2025 Value-Aligned Human-AI Interaction
Brown University

Feb 2025 Value-Aligned Human-AI Interaction
Microsoft Research

Jan 2025 Value-Aligned Human-AI Interaction
MIT Sloan & SCC

Jan 2025 Value-Aligned Human-AI Interaction
CFA Society — Chartered Financial Analyst West Michigan

Nov 2024	Designing Tools for Responsible AI <i>Wellesley College — Research Methods for Ethics of Technology Guest Lecture</i>
Nov 2024	Value-Aligned Human-AI Interaction <i>Harvard University — HCI Guest Lecture</i>
Oct 2024	Value-Aligned Human-AI Interaction <i>Michigan AI Symposium</i>
Sep 2024	Challenges of Human-AI Decision-Making in Cybersecurity Contexts <i>National Security Agency</i>
May 2024	Value-Aligned Human-AI Interaction <i>University of Washington — HCI Seminar</i>
May 2024	Value-Aligned Human-AI Interaction <i>CHI — Doctoral Consortium</i>
May 2024	Value-Aligned Human-AI Interaction <i>MIT CSAIL — Visualization Group</i>
Mar 2024	Value-Aligned Human-AI Interaction <i>IBM — Design for AI</i>
Feb 2024	Value-Aligned Human-AI Interaction <i>Nokia Bell Labs — Responsible AI Series</i>
Feb 2024	Offline Reinforcement Learning for Adaptive Support in AI-Assisted Decision-Making <i>Northeastern University — Human-Centered AI Group</i>
Feb 2024	Value-Aligned Human-AI Interaction <i>Northeastern University — HCI Guest Lecture</i>
Nov 2023	Value-Aligned Human-AI Interaction <i>Harvard University — Recompute</i>
Sep 2023	Adaptive Support in AI-Assisted Decision-Making <i>University of Michigan — Data Science for Dynamic Intervention Decision Making Center</i>
Jun 2023	Value-Aligned Human-AI Interaction <i>Federal Aviation Administration</i>
Jul 2022	Designing Cognition-Cognizant AI for Decision-Making Support <i>Wellesley College</i>

Mar 2022	What is Explainable AI? <i>Workshop on AI organized by MITxHarvard Women in AI for high-school students</i>
Nov 2021	Designing Cognition-Cognizant AI for Decision-Making Support <i>McGill University – Department of Psychology</i>
Oct 2021	Designing Cognition-Cognizant AI for Decision-Making Support <i>Cornell University – Information Science Seminar</i>
Oct 2021	How to succeed in AI? – Motivational Speaker <i>Workshop on AI for young women organized by IPKO Foundation, Kosovo</i>
Jul 2021	Designing Cognition-Cognizant AI for Decision-Making Support <i>Microsoft Research – HCI Talk Series</i>
Feb 2021	Young Scientists Interview Series <i>MITxHarvard Women in AI</i>
Jan 2021	Panelist at Career Paths Panel <i>Harvard WECODE 2021 High School Conference</i>

Students Mentored

2024 -	Diana Yue , Undergraduate student at Harvard, <i>AI and the Meaning of Work</i>
2024 -	Yiko Li , Graduate student at Harvard, <i>Designing Interaction for Multi-Agent Systems</i>
2023	Nadine Han , Undergraduate student at Harvard, <i>Incorrect AI Explanations and Misinformation</i>
2023	Kim Llajaruna , Graduate student at Harvard, <i>Designing Culturally Aware AI Explanations</i>
2022 - 23	Emilia Mazzolenis , Graduate student at Harvard, <i>Patient-Centric Decision-Support for IVF Settings</i>
2022	Ryan Kim , Undergraduate student at Harvard, <i>Patient-Centric Decision-Support for IVF Settings</i>
2022	Christina Xiao , Undergraduate student at Harvard, <i>Theory of Mind and Explainable AI</i>
2020	Maja B. Malaya , Visiting student at Harvard from Lodz in Poland, <i>Cognitive Forcing Functions</i>
2017	Çisem Altan , Undergraduate student at Koç, <i>Nonverbal Cue Recognition with Deep Learning</i>
2017	Ilayda Zengin , Undergraduate student at Koç, <i>Nonverbal Cue Recognition with Deep Learning</i>

Leadership, Outreach & Service

2025	Workshop Organizer Co-organized a workshop on Human-AI Interaction for Augmented Reasoning at CHI. aireasoning.media.mit.edu
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- 2023, 2024 **Workshop Organizer**
Co-organized a workshop on Regulatable Machine Learning (RegulatableML) at NeurIPS.
regulatableml.github.io
- 2024 **Workshop Organizer**
Co-organized a workshop on Trust and Reliance in Human-AI Workflows (TREW) at CHI.
chi-trew.github.io
- 2022, 2023 **Workshop Organizer**
Co-organized a workshop on Trust and Reliance in AI-Human Teams (TRAIT) at CHI.
chi-trait.github.io
- 2021- **Program Committee Member**
FAccT'25 Conference on Fairness, Accountability, and Transparency (ACM FAccT).
Workshop on Behavioral Machine Learning at **NeurIPS'24** (BehavioralML 2024).
FAccT'24 Conference on Fairness, Accountability, and Transparency (ACM FAccT).
Workshop on Explainable AI at **IJCAI'24** (XAI 2024).
FAccT'23 Conference on Fairness, Accountability, and Transparency (ACM FAccT).
Workshop on AI & HCI at **ICML'23** (AI & HCI 2023).
Workshop on Explainable AI at **IJCAI'23** (XAI 2023).
WWW'23 Crowdsourcing and Human Computation Track.
Workshop on Human-Centered AI (HCAI) at **NeurIPS'22**.
Workshop on Transparency and Explanations in Smart Systems (TEXSS) at **IUI'22**.
- 2020- **Reviewer**
CHI (2021-2025), UIST(2022-2024), CSCW (2020-2023), IUI (2022), TOCHI(2022), TiiS (2022-2024), IEEE TAC (2021)
- 2022 **Organizer of the AI-assisted decision-making colloquium at Harvard**
Organized a colloquium on AI-assisted decision-making at Harvard. The aim was to provide a forum for Harvard researchers with diverse backgrounds, ranging from machine learning to HCI, visualization, and psychology, that had either worked or were interested in the space of AI-assisted decision-making to share their findings and insights on how to design, build, and evaluate AI that complements human decision-making.
- 2023 - **Peer Mentor – InTouch Harvard**
InTouch is a graduate student-led initiative dedicated to fostering a student culture at SEAS that prioritizes well-being. Our mission is to provide a supportive community where students feel heard and valued. Through bi-weekly coffee chats, we create a welcoming space to openly discuss challenges such as imposter syndrome, stress, and isolation—common experiences during graduate programs.

2020 - **Mentor – WiSTEM Harvard**

I mentor undergraduate Harvard women that want to pursue careers in STEM. The mission of WiSTEM (Women in Science, Technology, Engineering, and Mathematics) is to create and maintain an environment that fosters the growth and development of women students in the science, technology, engineering, and mathematics community at Harvard College through mentorship.

2020 **Founder of HCI Reading Group for Undergrads at Harvard**

I organized and led a weekly reading group on Human-Computer Interaction topics at Harvard. I aimed to foster interest about the field for undergrads with varying levels of exposure to HCI.

2017- **Founder of Kosovo Association for Women in Tech**

I organize talks and workshops to foster young women in Kosovo pursue careers in technology.

Technical Strengths

Programming languages

Multi-paradigm: Python, Julia; Object-oriented: Java, C++, Scala; Web development; Data analysis: R

Frameworks

Deep Learning: Pytorch and Knet; Parallel Programming: CUDA, OpenMP, MPI; Computer Vision: OpenCV; Computer Graphics: OpenGL

Languages

Albanian (native), English (fluent), Turkish (fluent), Spanish (intermediate), Italian (intermediate), German (basic)