Zana Buçinca

zbucinca@mit.edu • zbucinca.github.io •

Research Interests

Human-AI Interaction; AI-Assisted Decision Making; Responsible AI; Worker-Centric AI

Employment

2026 – Present **Massachusetts Institute of Technology** *Cambridge, MA*
Assistant Professor
Sloan School of Management & Dept. of Electrical Engineering and Computer Science

2025 – Present **Microsoft** *Cambridge, MA*
Postdoctoral Researcher
Office of Applied Research

Education

2019 – 2025 **Harvard University** *Cambridge, MA*
PhD in Computer Science, *CGPA: 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, *CGPA: 3.96/4.00*
Thesis: Incorporating Affect Into Dialog Generation

2012 – 2016 **Izmir Institute of Technology** *Izmir, Turkey*
BSc in Computer Engineering, *CGPA: 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

2026 Users Mispredict Their Own Preferences for AI Writing Assistance
Vivian Lai, **Zana Buçinca**, Nil-Jana Akpinar, Mo Houtti, Hyeonsu B. Kang, Kevin Chian, Namjoon Suh, Alex C. Williams.
22 pages, arXiv.

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, arXiv.

Refereed Journal & Conference Publications

2026 Offline Reinforcement Learning for Adaptive Support in AI-Assisted Decision-Making
Zana Buçinca, Siddharth Swaroop, Amanda E. Paluch, Susan A. Murphy, Krzysztof Z. Gajos.
43 pages, ACM Transactions of Computer-Human Interaction (TOCHI).

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.
24 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.
16 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 the ACM Conference on Intelligent User Interfaces, IUI'20, 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 - Jun 2025 **Intelligent Interactive Systems Group, Harvard Unviersity** *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 2026 Worker-Centric AI
MIT HCI Seminar

May 2026 Worker-Centric AI
City University of New York

Apr 2026	Worker-Centric AI *Koç University AI Center, Turkey*
Apr 2026	Worker-Centric AI *University of Alberta & Alberta Machine Intelligence Institute, Canada*
Apr 2026	Worker-Centric AI *Keynote speaker at the CHI 2026 Workshop on Agentic Automation Experiences*
Mar 2026	Worker-Centric AI *gfm (the leading C-level marketing network in Switzerland)*
Nov 2025	Worker-Centric AI *The Academic Fringe Festival – TU Delft, The Netherlands*
Nov 2025	Pro-Worker AI: What Is It, and How Do We Do It? *Panelist at the launch of the MIT Stone Center on Inequality and Shaping the Future of Work*
Oct 2025	Value-Aligned Human-AI Interaction *MIT GW6 (Graduate Women of Course 6) Summit*
May 2025	Value-Aligned Human-AI Interaction *Max Planck Law Tech & Society initiative, Germany*
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 *Wellesley College — Research Methods for Ethics of Technology Guest Lecture*

Nov 2024	Value-Aligned Human-AI Interaction *Harvard University — HCI Guest Lecture*
Oct 2024	Value-Aligned Human-AI Interaction *Michigan AI Symposium*
Sep 2024	Challenges of Human-AI Decision-Making in Cybersecurity Contexts *National Security Agency*
May 2024	Value-Aligned Human-AI Interaction *University of Washington — HCI Seminar*
May 2024	Value-Aligned Human-AI Interaction *CHI — Doctoral Consortium*
May 2024	Value-Aligned Human-AI Interaction *MIT CSAIL — Visualization Group*
Mar 2024	Value-Aligned Human-AI Interaction *IBM — Design for AI*
Feb 2024	Value-Aligned Human-AI Interaction *Nokia Bell Labs — Responsible AI Series*
Feb 2024	Offline Reinforcement Learning for Adaptive Support in AI-Assisted Decision-Making *Northeastern University — Human-Centered AI Group*
Feb 2024	Value-Aligned Human-AI Interaction *Northeastern University — HCI Guest Lecture*
Nov 2023	Value-Aligned Human-AI Interaction *Harvard University — Recompute*
Sep 2023	Adaptive Support in AI-Assisted Decision-Making *University of Michigan — Data Science for Dynamic Intervention Decision Making Center*
Jun 2023	Value-Aligned Human-AI Interaction *Federal Aviation Administration*
Jul 2022	Designing Cognition-Cognizant AI for Decision-Making Support *Wellesley College*
Mar 2022	What is Explainable AI? *Workshop on AI organized by MITxHarvard Women in AI for high-school students*

Nov 2021 Designing Cognition-Cognizant AI for Decision-Making Support
McGill University – Department of Psychology

Oct 2021 Designing Cognition-Cognizant AI for Decision-Making Support
Cornell University – Information Science Seminar

Oct 2021 How to succeed in AI? – Motivational Speaker
Workshop on AI for young women organized by IPKO Foundation, Kosovo

Jul 2021 Designing Cognition-Cognizant AI for Decision-Making Support
Microsoft Research – HCI Talk Series

Feb 2021 Young Scientists Interview Series
MITxHarvard Women in AI

Jan 2021 Panelist at Career Paths Panel
Harvard WECode 2021 High School Conference

Students Mentored

2024 **Diana Yue**, Undergraduate student at Harvard, *AI and the Meaning of Work*

2024 **Yiko Li**, Graduate student at Harvard, *Designing Interaction for Multi-Agent Systems*

2023 **Nadine Han**, Undergraduate student at Harvard, *Incorrect AI Explanations and Misinformation*

2023 **Kim Llajaruna**, Graduate student at Harvard, *Designing Culturally Aware AI Explanations*

2022 - 23 **Emilia Mazzolenis**, Graduate student at Harvard, *Patient-Centric Decision-Support for IVF Settings*

2022 **Ryan Kim**, Undergraduate student at Harvard, *Patient-Centric Decision-Support for IVF Settings*

2022 **Christina Xiao**, Undergraduate student at Harvard, *Theory of Mind and Explainable AI*

2020 **Maja B. Malaya**, Visiting student at Harvard from Lodz in Poland, *Cognitive Forcing Functions*

2017 **Çisem Altan**, Undergraduate student at Koç, *Nonverbal Cue Recognition with Deep Learning*

2017 **Ilayda Zengin**, Undergraduate student at Koç, *Nonverbal Cue Recognition with Deep Learning*

Leadership, Outreach & Service

2025 **Workshop Organizer**
Co-organized a workshop on Human-AI Interaction for Augmented Reasoning at CHI.
aireasoning.media.mit.edu

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, 2025, 2026), 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)