Pranav Khadpe

Human-Computer Interaction Institute
School of Computer Science
Carnegie Mellon University, Pittsburgh, PA, USA 15213

pkhadpe@cs.cmu.edu
pranavkhadpe.github.io
Google Scholar

Research Interests

Human-Computer Interaction, Social Computing, Computer-Supported Cooperative Work, Human-Centered AI.

Education

Carnegie Mellon University, Pittsburgh *2020 - present*
PhD in Human-Computer Interaction
Advisors: Prof. Chinmay Kulkarni & Prof. Geoff Kaufman

Indian Institute of Technology Kharagpur *2015 - 2020*
B.Tech and M.Tech in Electrical Engineering with a Minor in Computer Science and Engineering

Selected Awards and Honors

- **CSCW 2020 Best Paper Honorable Mention** *2020*
- **Ranked 3rd** among Dual Degree students in Electrical Engineering, IIT Kharagpur *2020*
- **S.N Bose Scholarship** to support my internship at Stanford University (awarded to 50 students across India). *2019*
- **All India Rank 1322** in JEE Mains 2015 (out of 1.4M candidates) *2015*

Publications

3. **Conceptual Metaphors Impact Perceptions of Human-AI Collaboration**.
Pranav Khadpe, Ranjay Krishna, Li Fei-Fei, Jeffrey Hancock and Michael Bernstein.
Proceedings of the ACM on Human-Computer Interaction. CSCW (October 2020)
🏆 **Best Paper Honorable Mention**.

2. **Do Multilingual Users Prefer Chatbots that Code-Mix? Let's Nudge and Find-Out!**.
Anshul Bawa, **Pranav Khadpe**, Pratik Joshi, Kalika Bali and Monojit Choudhury
Proceedings of the ACM on Human-Computer Interaction. CSCW (May 2020)

1. **AI-based Request Augmentation to Increase Crowdsourcing Participation**.
Junwon Park, Ranjay Krishna, **Pranav Khadpe**, Li Fei-Fei and Michael Bernstein
HCOMP 2019: AAAI Conference on Human Computation and Crowdsourcing.

Research Experience

Carnegie Mellon University, Human-Computer Interaction Institute *September, 2020 - Present*
Graduate Research Assistant
Advisors: Prof. Chinmay Kulkarni & Prof. Geoff Kaufman

Designing interventions to improve how people work together by promoting perspective-taking. Building a system that employs gameful mechanisms that prompt members of teams to reflect on socio-emotional states of other team members during collaboration. Studying the benefits of such perspective-taking on team performance and well-being.

Stanford University, Human-Computer Interaction Group *May, 2019 - December, 2019*
Research Intern
Advisors: Prof. Michael Bernstein & Ranjay Krishna

Contributed to a project that sought to increase response rates of an organic crowdsourcing system deployed on Instagram by incorporating insights from social psychology. Primarily involved in designing and running experiments. [HCOMP '19]

Led a project to understand how conceptual metaphors attached with systems shape user attitudes towards them in an attempt to study how users formulate folk theories of systems they interact with. Involved in experiment design, study setup and deployment. Designed a WoZ study for which I recruited and trained freelancers from UpWork to serve as wizards. Built the interfaces for the study and deployed the study on Amazon Mechanical Turk. [CSCW '20]

Microsoft Research India, Multilingual Systems Group *April, 2018 - July, 2018*
Research Intern
Advisor: Dr. Monojit Choudhury

Studied style variation in conversations in context of the Communication Accommodation Theory with the primary aim of designing conversational systems that can reciprocate multilingual users' language mixing. In continuation of previous work establishing Code Switching (language-mixing) as a linguistic style marker, designed computational Code-Switching policies for chat-bots to accommodate for it.

Built a human-in-the-loop study platform for us to test our Code-Switching policies and study user preferences among our chatbot variants. Deployed the study via flyers on social media and analyzed the responses, including chatlogs of the 91 participants. [CSCW '20]

IIT Kharagpur, Center for Educational Technology *July, 2018 - March, 2019*
Undergraduate Research Assistant
Advisor: Dr. Plaban Bhowmick

Worked on generating automated comparisons between pairs of entities using their Wikipedia articles. Explored the use of clustering algorithms, on bag-of-words sentence embeddings, including Gaussian LDA and Gaussian PLSA. Also experimented with semantic similarity prediction models to find sentence pairs across documents that talk about similar attributes of the two entities.

Professional Responsibilities

- *Reviewer:*
  - ACM Conference on Human Factors in Computing Systems (CHI) *2021*
  - Poster Track, ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW) *2020*
- *Undergraduate Teaching Assistantship* - Electrical Engineering, IIT Kharagpur:
  - Measurement and Instrumentation Laboratory - *Prof. Sk. Mohammadul Haque* *Spring 2020*
  - Signals and Networks Laboratory - *Prof. Anirban Mukherjee* *Autumn 2019*
- *Co-organizer*- Social Computing Reading Group - Carnegie Mellon University *2020 - 2021*
- *Shadow Tutor*- Signals and Networks - Electrical Engineering, IIT Kharagpur *2017 - 2018*

Skills

Languages and Technologies: Python, C, C++, HTML, CSS, JavaScript, jQuery, Vue,js, Express.js, Meteor, Ruby on Rails, Flask, MongoDB, Heroku, Git, Selenium, BeautifulSoup, numpy, pandas, scikit-learn, Amazon Mechanical Turk.