

# ASHIQR R. KHUDABUKHSH

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## RESEARCH INTERESTS

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Machine learning, artificial intelligence, natural language processing, computational social science, and AI for social good.

## CURRENT EMPLOYMENT

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**Carnegie Mellon University** **2018-Present**  
*Project Scientist* (Current). Postdoctoral Associate (2018 -2019).

## EDUCATION

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**Ph.D. Carnegie Mellon University (CMU)** **2017**  
Computer Science  
Thesis: *Distributed Learning in Referral Networks*  
Advisor: Prof. Jaime G. Carbonell  
Thesis Committee: Profs. Manuel Blum, Manuela Veloso, and Victor Lesser (Univ. Mass. Amherst)

**M.Sc. University of British Columbia (UBC)**, Vancouver, Canada **2009**  
Computer Science  
Thesis: *SATenstein: Automatically Building SAT Solvers from Components*  
Advisors: Profs. Kevin Leyton-Brown and Holger H. Hoos

**B.Tech.** West Bengal University of Technology Kolkata, India **2005**  
Computer Science and Engineering

## SUMMARY OF PUBLICATIONS

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h-index: 7. Journal Publications: 3. Conference Publications: 23. Most Cited Paper: 145 citations.

### **5 Most-significant publications** (\* = equal contribution first author)

Ashiqur R. KhudaBukhsh\*, Rupak Sarkar\*, Mark S. Kamlet, Tom M. Mitchell. *We Don't Speak the Same Language: Interpreting Polarization Through Machine Translation*. **AAAI-21** (preprint: <https://arxiv.org/pdf/2010.02339v2.pdf>).

Rupak Sarkar\*, Sayantan Mahinder\*, HIRAK SARKAR, Ashiqur R. KhudaBukhsh. *Social Media Attributions in the Context of Water Crisis*. **EMNLP-20** (link: <https://www.aclweb.org/anthology/2020.emnlp-main.109.pdf>).

Ashiqur R. KhudaBukhsh\*, Shriphani Palakodety\*, Jaime G. Carbonell. *Harnessing Code Switching to Transcend the Linguistic Barrier*. **IJCAI-PRICAI-20** (link: <https://www.ijcai.org/Proceedings/2020/0602.pdf>).

Shriphani Palakodety\*, Ashiqur R. KhudaBukhsh\*, Jaime G. Carbonell. *Voice for the Voiceless: Active Sampling to Detect Comments Supporting the Rohingya*. **AAAI-20** (preprint: <https://arxiv.org/pdf/1910.03206.pdf>).

Shriphani Palakodety\*, Ashiqur R. KhudaBukhsh\*, Jaime G. Carbonell. *Hope Speech Detection: A Computational Analysis of the Voice of Peace*. **ECAI-20** (preprint: <https://arxiv.org/pdf/1909.12940.pdf>).

## GRANTS

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*EAGER: Distributed Learning in Expert Referral Networks*, National Science Foundation (NSF).

Role: Co-author Outcome: Awarded. Federal award id: 1649225, PI: Jaime G. Carbonell, awarded amount: \$90,000.

- Instructor for CMU graduate course (11-865) on tracking political sentiments using machine learning (team taught with Prof. Tom M. Mitchell and Prof. Mark S. Kamlet). Faculty course evaluation: **4.85/5** (institute average: 4.3).
- Instructor for 3 undergraduate courses at Jadavpur Univ (a top-ranking university in India) and West Bengal Univ.
- Teaching Assistant for 1 graduate course and 7 undergraduate courses at CMU and Univ. British Columbia: Artificial Intelligence, Graduate Algorithms, Complexity Theory, and Data Structures.
- Mentored 6 undergraduate students in research. All of them proceeded to academic/industry careers in STEM.
- Co-mentored (with Prof. Tom M. Mitchell) one CMU graduate student for an independent study.
- Taught several Computer Science courses to High School students in IDEA Math Program.

PUBLICATIONS

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**Journal Publications** (\* = equal contribution first author)

- J3: [Ashiqur R. KhudaBukhsh](#), Jaime G. Carbonell.  
*Expertise Drift in Referral Networks*.  
*JAMMAS: Journal of Autonomous Agents and Multi-Agent Systems*, volume 33.5, pp. 645-671, 2019.
- J2: [Ashiqur R. KhudaBukhsh](#), Jaime G. Carbonell, Peter J. Jansen.  
*Robust Learning in Expert Networks: A Comparative Analysis*.  
*JGIS: Journal of Intelligent Information Systems*, volume 51.2, pp. 207-234, 2018.
- J1: [Ashiqur R. KhudaBukhsh\\*](#), Lin Xu\*, Kevin Leyton-Brown, Holger H. Hoos.  
*SATenstein: Automatically Building Local Search SAT Solvers from Components*.  
*AIJ: Artificial Intelligence Journal*, volume 232, pp. 20-42, March 2016. [**Nominated for AIJ award 2020**]

**Conference Publications** (\* = equal contribution first author)

**Published**

- C23: Ramon Villa-Cox, Shuxuan (Helen) Zeng, [Ashiqur R. KhudaBukhsh](#), Kathleen M. Carley.  
*Exploring Polarization of Users' Behavior on Twitter During the 2019 South American Protests*.  
*International Conference on Computational Social Science (IC2S2-21)*.
- C22: [Ashiqur R. KhudaBukhsh\\*](#), Rupak Sarkar\*, Mark S. Kamlet, Tom M. Mitchell.  
*We Don't Speak the Same Language: Interpreting Polarization through Machine Translation*.  
*AAAI Association of Artificial Intelligence (AAAI-21)*, AI for Social Impact track [**Oral, 21%**].
- C21: Rupak Sarkar, [Ashiqur R. KhudaBukhsh](#).  
*Are Chess Discussions Racist? An Adversarial Hate Speech Data Set (Student Abstract)*.  
*AAAI Association of Artificial Intelligence (AAAI-21)*, [to appear, **Best AAAI-2021 Student Abstract, video**].
- C20: Kunal Khadilkar, [Ashiqur R. KhudaBukhsh](#).  
*An Unfair Affinity Toward Fairness: Characterizing 70 Years of Social Biases in Bollywood (Student Abstract)*.  
*AAAI Association of Artificial Intelligence (AAAI-21)*, [to appear].
- C19: Rupak Sarkar\*, Sayantan Mahinder\*, HIRAK SARKAR, [Ashiqur R. KhudaBukhsh](#).  
*Social Media Attributions in the Context of Water Crisis*.  
*Empirical Methods in Natural Language Processing, (EMNLP 2020)*, pp. 1402-1412 [**Oral, 22.4%**].
- C18: [Ashiqur R. KhudaBukhsh\\*](#), Shriphani Palakodety\*, Jaime G. Carbonell.  
*Harnessing Code Switching to Transcend the Linguistic Barrier*.  
*International Joint Conference on Artificial Intelligence, (IJCAI-PRICAI 2020)*, pp. 4366-4374 [**Oral, 12.7%**].

- C17: Shriphani Palakodety\*, [Ashiqur R. KhudaBukhsh\\*](#), Jaime G. Carbonell.  
*The Refugee Experience Online: Surfacing Positivity Amidst Hate.*  
*European Conference on Artificial Intelligence*, (ECAI-20), pp. 2925-2926.
- C16: Shriphani Palakodety\*, [Ashiqur R. KhudaBukhsh\\*](#), Jaime G. Carbonell.  
*Mining Insights from Large-scale Corpora Using Fine-tuned Language Models.*  
*European Conference on Artificial Intelligence*, (ECAI-20), pp. 1890-1897 [**Oral, 26.8%**].
- C15: Shriphani Palakodety\*, [Ashiqur R. KhudaBukhsh\\*](#), Jaime G. Carbonell.  
*Hope Speech Detection: A Computational Analysis of the Voice of the Peace.*  
*European Conference on Artificial Intelligence*, (ECAI-20), pp. 1881-1889 [**Oral, 26.8%**].
- C14: Shriphani Palakodety\*, [Ashiqur R. KhudaBukhsh\\*](#), Jaime G. Carbonell.  
*Voice for the Voiceless: Active Sampling to Detect Comments Supporting the Rohingya.*  
*AAAI Association of Artificial Intelligence (AAAI-20)*, AI for Social Impact track, pp. 454-462 [**Oral, 5.7%**].
- C13: [Ashiqur R. KhudaBukhsh](#), Jaime G. Carbonell.  
*Toward Reciprocity-Aware Distributed Learning in Referral Networks.*  
*Pacific Rim International Conference on Artificial Intelligence (PRICAI-19)*, pp. 121-135.
- C12: [Ashiqur R. KhudaBukhsh](#), Jaime G. Carbonell.  
*Endorsement in Referral Networks.*  
*European Conference on Multi-Agent Systems (EUMAS-18)*, pp. 172-187, 2018.
- C11: [Ashiqur R. KhudaBukhsh](#), Jong Woo Hong, Jaime G. Carbonell.  
*Market-aware Proactive Skill Posting.*  
*International Symposium on Methodologies for Intelligent Systems (ISMIS-18)*, pp. 323-332, 2018.
- C10: [Ashiqur R. KhudaBukhsh](#), Jaime G. Carbonell.  
*Expertise Drift in Referral Networks.*  
*International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS-18)*, 2018 [**Oral, 6.7%**].
- C9: [Ashiqur R. KhudaBukhsh](#), Jaime G. Carbonell, Peter J. Jansen.  
*Incentive Compatible Proactive Skill Posting in Referral Networks.*  
*European Conference on Multi-Agent Systems (EUMAS-17)*, pp. 29-43, 2017.
- C8: [Ashiqur R. KhudaBukhsh](#), Jaime G. Carbonell, Peter J. Jansen.  
*Robust Learning in Expert Networks: A Comparative Analysis.*  
*International Symposium on Methodologies for Intelligent Systems (ISMIS-17)*, pp. 292-301, 2017.
- C7: [Ashiqur R. KhudaBukhsh](#), Peter J. Jansen, Jaime G. Carbonell.  
*Distributed Learning in Expert Referral Networks.*  
*European Conference on Artificial Intelligence*, (ECAI-16), pp. 1620-1621, 2016.
- C6: [Ashiqur R. KhudaBukhsh](#), Jaime G. Carbonell, Peter J. Jansen.  
*Proactive Skill Posting in Referral Networks.*  
*Australasian Joint Conference on Artificial Intelligence*, pp. 585-596, 2016.
- C5: [Ashiqur R. KhudaBukhsh](#), Jaime G. Carbonell, Peter J. Jansen.  
*Proactive-DIEL in Evolving Referral Networks.*  
*European Conference on Multi-Agent Systems (EUMAS-16)*, pp. 148-156, 2016.

C4: Lin Xu\*, Ashiqur R. KhudaBukhsh\*, Kevin Leyton-Brown, Holger H. Hoos.

*Quantifying the Similarity of Algorithm Configurations.*

*Learning and Optimization Conference (LION 10)*, pp. 203-217, 2016.

C3: Ashiqur R. KhudaBukhsh, Paul N. Bennett, Ryan W. White.

*Building Effective Query Classifiers: A Case Study in Self-harm Intent Detection.*

*International Conference on Information and Knowledge Management (CIKM)*, pp. 1735-1738, 2015.

C2: Ashiqur R. KhudaBukhsh, Jaime G. Carbonell, Peter J. Jansen.

*Detecting Non-adversarial Collusion in Crowdsourcing.*

*Conference on Human Computation and Crowdsourcing (HCOMP)*, pp. 517-524, 2014.

C1: Ashiqur R. KhudaBukhsh, Lin Xu, Kevin Leyton-Brown, Holger H. Hoos.

*SATenstein: Automatically Building Local Search SAT Solvers from Components.*

*International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 517-524, 2009 [**Oral, 25.7%**].

### ***Under Review***

R4: Ramon Villa-Cox, Shuxuan (Helen) Zeng, Ashiqur R. KhudaBukhsh, Kathleen M. Carley.

*Exploring Polarization of Users Behavior on Twitter During the 2019 South American Protests (Plos One).*

R3: Ashiqur R. KhudaBukhsh\*, Rupak Sarkar\*, Mark S. Kamlet, Tom M. Mitchell.

*Fringe News Networks: Dynamics of US News Viewership following the 2020 US Presidential Election.*

R2: Ashiqur R. KhudaBukhsh\*, Shriphani Palakodety\*, Tom M. Mitchell.

*Harnessing Unsupervised Machine Translation for Cross-lingual Sampling.*

R1: Kunal Khadilkar, Ashiqur R. KhudaBukhsh, Tom M. Mitchell

*Gender Bias, Social Bias and Representation: 70 Years of B<sup>H</sup>ollywood (Cell, Patterns).*

### **Workshop Publications** (\* = equal contribution first author)

#### ***Published***

W7: Clay Yoo, Shriphani Palakodety, Rupak Sarkar, Ashiqur R. KhudaBukhsh.

*Empathy and Hope: Resource Transfer to Model Inter-country Social Media Dynamics.*

*ACL 2021 NLP for Positive Impact Workshop.*

W6: Rupak Sarkar\*, Sayantan Mahinder\*, Hirak Sarkar, Ashiqur R. KhudaBukhsh.

*Social Media Attributions in the Context of Water Crisis.*

*IJCAI 2020 AI for Social Good Workshop.*

W5: Kunal Khadilkar, Ashiqur R. KhudaBukhsh.

*An Unfair Affinity Toward Fairness: Characterizing 70 Years of Social Biases in B<sup>H</sup>ollywood.*

*IJCAI 2020 AI for Social Good Workshop.*

W4: Rupak Sarkar, Sayantan Mahinder, Ashiqur R. KhudaBukhsh.

*The Non-native Speaker Aspect: Indian English in Social Media.*

*Empirical Methods in Natural Language Processing (EMNLP) 2020, W-NUT.*

W3: Shriphani Palakodety\*, Ashiqur R. KhudaBukhsh\*.

*Annotation Efficient Language Identification from Weak Labels.*

*Empirical Methods in Natural Language Processing (EMNLP) 2020, W-NUT.*

W2: Kunal Khadilkar, [Ashiqur R. KhudaBukhsh](#).  
*An Unfair Affinity Toward Fairness: Characterizing 70 Years of Social Biases in B<sup>H</sup>ollywood*.  
*Empirical Methods in Natural Language Processing (EMNLP) 2020, NLP-CSS*.

W1: [Ashiqur R. KhudaBukhsh\\*](#), Shriphani Palakodety\*, Jaime G. Carbonell.  
*On NLP Methods Robust to Noisy Indian Social Media Data*.  
*AI for Social Good*, (Harvard University, CRCS 2020).

**Non-technical Publications** (collection of poems)

B3: Kalam Dani (*The Penholder*). Published by Shudhu Bighe Dui, 2016. *The Penholder* condemns the suppression of freedom of speech in the recent context of bloggers from Bangladesh.

B2: Baraf Bondir Diary (*Trapped in the Snow*). Published by SristiSukh, 2015. *Trapped in the Snow* is a take on our newest epidemic – loneliness.

B1: Ghum Naam-er Pahar (*The Sleepy Mountain*). Published by SristiSukh, 2013. *The Sleepy Mountain* is a romantic travelogue set into verses.

#### CONFERENCE REVIEWING ACTIVITY

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*The Thirty-eighth International Conference on Machine Learning (ICML 2021)*.

*The Joint Conference of the 59<sup>th</sup> Annual Meeting of the Association for Computational Linguistics and the 11<sup>th</sup> International Joint Conference on Natural Language Processing (ACL-IJNLP 2021)*.

*The Sixth Workshop on Noisy User-Generated Text (EMNLP W-NUT 2020, **program committee**)*.

*The First Workshop on Combating Online Hostile Posts in Regional Languages during Emergency Situation (AAAI CONSTRAINT 2021, **steering committee**)*.

*The Twenty-fourth International Conference on Artificial Intelligence and Statistics (AISTATS 2021)*.

*The Thirty-fifth AAAI Conference on Artificial Intelligence (AAAI 2021)*.

*Neural Information Processing Systems (NeurIPS 2018, 2019, 2020, 2021)*.

*The Fourth Workshop on Online Abuse and Harms (EMNLP WOAHA 2020, 2021)*.

*The Twenty-ninth International Joint Conference on Artificial Intelligence (IJCAI-PRICAI 2020, also a **session chair**)*.

*International ACM SIGIR Conference on Research and Development in Information Retrieval, (SIGIR 2016, 2017)*.

#### TEACHING EXPERIENCE

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Course: Tracking Political Sentiments Using Machine Learning.

Role: **Co-instructor** with Prof. Mark S. Kamlet and Prof. Tom M. Mitchell.

Offered at: Carnegie Mellon University, Pittsburgh, Pennsylvania. September 2020 – December 2020.

Faculty course evaluation: **4.85/5** (institute average: 4.3).

Course: Three 8-hour sessions on Sorting and Searching for high school students at the Idea Math program.

Role: **Instructor**.

Offered at: Carnegie Mellon University, Pittsburgh, Pennsylvania. Summer 2013.

Course: Two 8-hour sessions on Sorting and Searching for high school students at the Idea Math program.

Role: **Joint Instructor** with Anvesh Komuravelli.

Offered at: Carnegie Mellon University, Pittsburgh, Pennsylvania. Summer 2012.

Course: Introduction to Computer Programming and Numerical Methods.

Role: **Guest Faculty Member**.

Offered at: Jadavpur University, Kolkata, India. January 2011 – May 2011.



Courses: Undergraduate Artificial Intelligence, Undergraduate Design and Analysis of Algorithms.

Role: *Visiting Faculty Member*.

Offered at: Kalyani Government Engineering College, Kalyani, India. August 2010 – December 2010.

Courses: Undergraduate Artificial Intelligence.

Role: *Visiting Faculty Member*.

Offered at: Kalyani Government Engineering College, Kalyani, India. August 2005 – December 2005.

\*TA for **eight** courses on AI, data structures and algorithms, complexity theory and graduate algorithms.

#### MENTORING EXPERIENCE

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Year	Student's name	Outcome / Where they are now
2019-21	Rupak Sarkar (KGEC)	Published papers at EMNLP 2020 (long), AAAI 2021 (long), AAAI (SA) 2021, EMNLP 2020 (WNUIT), IJCAI AI for social good workshop 2020, ACL NLP for positive impact workshop (2021). Won <b>Best AAAI Student Abstract</b> at AAAI 2021. Admitted to the CS PhD program at University of Maryland, College Park.
2020-21	Kunal Khadilkar (CMU)	Published papers at AAAI 2021 (SA), EMNLP 2020 (NLP-CSS), IJCAI AI for social good workshop 2020. Invited to present a <b>TEDx talk</b> at the University of Wisconsin Madison on ongoing and evolving racial inequalities.
2021	Clay Yoo (CMU)	Published a paper at ACL NLP for positive impact workshop 2021
2018	Jong Woo Hong (CMU)	Published a paper at ISMIS 2018
2010-11	Hirak Sarkar (KGEC)	Postdoc at Harvard Medical School
2010-11	Soumyajit De (KGEC)	Microsoft, India
2010-11	Indrajit Banerjee (KGEC)	Microsoft, India
2010-11	Sayantana Chaudhury (KGEC)	SAP Labs, India

KGEC: Computer Science Department, Kalyani Government Engineering College, Kalyani, India.

CMU: Computer Science Department, Carnegie Mellon University.

#### PREVIOUS EMPLOYMENTS

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**Carnegie Mellon University, Pittsburgh, Pennsylvania.** August 2011 – December 2017.

*Research Assistant* in the Department of Computer Science, working with Prof. Jaime Carbonell.

**Yahoo! Research, Sunnyvale, California.** May 2017 – August 2017.

*Research Intern* working with Dr. Narayan Bhamidipati.

**Microsoft Research, Redmond, Washington.** May 2014 – August 2014.

*Research Intern* working with Dr. Paul N. Bennett and Dr. Ryen W. White.

**Jadavpur University, Kolkata, India.** January 2011 – May 2011.

*Guest Faculty Member* in Computer Science Department.

**Kalyani Govt. Engineering College, Kalyani, India.** August 2010 – December 2010.

*Visiting Faculty Member* in Computer Science Department.

**Microsoft Corporation, Redmond, Washington.** February 2009 – February 2010.

*Software Development Engineer* in Quadrant Version 1 Team.

**University of British Columbia, Vancouver, Canada.** July 2008 – August 2008.

*Research Assistant* in the Department of Computer Science, working with Prof. Kevin Leyton-Brown and Prof. Holger H. Hoos.

**Microsoft Corporation, Redmond, Washington.** June 2007 – August 2007.

*Software Development Engineer Intern* in Quadrant Version 1 Team.

**Cognizant Technology Solutions, Kolkata, India.** January 2006 – July 2006.

*Programming Analyst Trainee.*

**Kalyani Govt. Engineering College, Kalyani, India.** August 2005 – December 2005.

*Visiting Faculty Member*, in Computer Science Department.

#### AWARDS AND HONORS

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*Best AAAI-2021 Student Abstract* at AAAI Association of Artificial Intelligence (AAAI 2021), 2021.

*Best Poster* (6 awarded in total) at AI for Social Impact Workshop, CRCS, Harvard University, 2020.

*Featured in Premier List of AAMAS 2018 Papers* for *Expertise Drift in Referral Networks*; *International Conference on Autonomous Agents and Multi-Agent Systems* (AAMAS-18), 2018.

*AIJ Award 2020 Nomination* for *SATenstein: Automatically Building Local Search SAT Solvers from Components*; *AIJ: Artificial Intelligence Journal*, volume 232, pp. 20-42, March 2016.

*ACM Grant* (\$1,100) for presenting at CIKM 2015.

*AI 2016 Grant* (AUD 400) for presenting at the Australasian Joint Conference on Artificial Intelligence (AI 2016).

*International Partial Tuition Scholarship* and full assistantship for pursuing M.Sc (Master of Science) in Computer Science, in University of British Columbia (2006).

*University Graduate Fellow (UGF) Award* from EECS department, Vanderbilt University (2006). (declined).

*MHRD (Ministry of Human Resource Development) Scholarship* for pursuing M.E (Master of Engineering) in Internet Science in Indian Institute of Science, Bangalore, 2006 (declined).

Ranked 55 among 22,393 participants in GATE (Graduate Aptitude Test in Engineering, a nationwide technical examination conducted by IITs and IISc) (2006).

*Silver Medal* from Governor of West Bengal for standing second in Computer Science Department (top 0.2%) of West Bengal University of Technology (2006).

*National Merit Scholarship* for ranking 21st among 372,928 students in the Higher Secondary Examination of West Bengal, India (2001).

*State Government Award* and *National Merit Scholarship* for ranking 12th among 529,329 students in the Secondary Examination of West Bengal, India (1999).

#### SELECTED MEDIA COVERAGE

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*Fair is Still Lovely, Men Still Come First: Findings from an AI-led Study of Bollywood Films*, Hindustan Times, April 2021.

*The John Oakley Show (live interview)*, Global News, Toronto 640, March 2021.

*Pittsburgh Researchers Use AI to Study Bias in Bollywood, Hollywood Films*, Pittsburgh NPR, March 2021.

*Por qué YouTube Bloqueó Video de Ajedrez por Incitar al Odio*, Digital Trends (español), March 2021.

*Online Chess Has a Problem: AI Flags Black vs White as Hate Speech*, Indian Express (**front page news**), March 2021.

*Why YouTube Banned Agadmator's Hikaru Interview*, Hikaru Nakamura's (current world #1 blitz chess player, peak classical chess ranking: #2) Official YouTube Channel, March 2021.

*AI Finds Bollywood's Association of Beauty With Fair Skin Unchanged*, The Hindu, March 2021.

*AI Flags “Black” and “White” Language of Chess as Racist*, Mind Matters, March 2021.

*AI to Detect Bias in Indian Entertainment Industry*, India AI (Indian Government AI portal), March 2021.

*YouTube Blokkeert Schaker om Woorden ‘Zwart’ en ‘Wit’*, De Telegraaf, March 2021.

*Why a YouTube Chat About Chess Got Flagged for Hate Speech*, Wired, February 2021.

*Bollywood Movies Still Associate Beauty with Fair Skin, AI Study Finds*, Vice, February 2021.

*Bollywood Movies Continue to Associate Beauty with Fair Skin, AI Study Finds*, The Next Web, February 2021.

*Bollywood Still Links Women’s Beauty to Fair Skin, Claims Artificial Intelligence*, News18, February 2021.

*AI Identifies Social Bias Trends in Bollywood, Hollywood Movies*, **CMU Press Release**, February 2021.

*Il Bianco Attacca Il Nero, YouTube Blocca il Canale di Scacchi per Contenuti Razzisti*, Corriere della Sera, February 2021.

*YouTube AI Blocked Chess Channel after Confusing ‘Black’ and ‘White’ for Racist Slurs*, News18, February 2021.

*YouTube’s AI Blocks Channel After Allegedly Mistaking Discussions about Chess Pieces being ‘Black’ and ‘White’ for Racist Slurs*, DailyMail, February 2021.

*Kings and Queens of Chess May Trip up AI Systems Meant to Monitor Online Communication*, Pittsburgh Post-Gazette, February 2021.

*Pieces of Color: When YouTube’s Oversensitive Filters Thinks Chess Videos Are Racist, Will Language have to Adapt to Big-tech?* RT, February 2021.

*AI Mistake “Black and White” Chess Chat at Racism*, Independent, February 2021.

*AI May Mistake Chess Discussions as Racist Talk*, **CMU Press Release**, February 2021.

*Newsmax and OAN: How are the Ultra-conservative Cable Channels Coping Without Trump in the White House*, Independent, February 2021.

*Don’t Blame Fox News for the Attack on the Capitol*, The Conversation, Houston Chronicle, Salon, January 2020.

*Speaking Different Languages*, Pittsburgh Post-Gazette, November 2020.

*A Protest to One is a Riot to Another: CMU Studies the Polarization of Our Words*, NextPittsburgh, November 2020.

*Fox News Viewers Write About ‘BLM’ the Same Way CNN Viewers Write About ‘KKK’*, Yahoo! News, October 2020.

*Carnegie Mellon Study Finds Severe Polarization in Political Language*, Tribune-Review, October 2020.

*Mask V.s. Muzzle: Even Words Are Now Polarized*, Futurity, October 2020.

*Fox News Viewers Write About ‘BLM’ the Same Way CNN Viewers Write About ‘KKK’*, The Conversation, Houston Chronicle, Salon, October 2020.

*The Left and the Right Speak Different Languages -Literally*, Wired, October 2020

*Even Our Language is Polarized*, **CMU Press Release**, October 2020.

*Carnegie Mellon Continues its Research on ‘Hostility-diffusing, Peace-seeking Hope Speech’*, Pure AI, August 2020.

*New AI System to Help Counter Online Hate Speech*, Times of India, January 2020.

*Carnegie Mellon Researchers Propose AI that Surfaces Positive Online Comments*, VentureBeat, January 2020.

*Filter by Positivity: This New A.I. Could Detoxify Online Comment Threads*, Digital Trends, January 2020.

*New AI System to Counter Online Hate Directed at Robingyas*, The Quint, January 2020.

*AI Technology Can Curb Hate Speech Against Robingyas*, Daily World, January 2020.

*Carnegie Mellon Uses AI to Counter Online Hate Speech with ‘Hope Speech’*, Pure AI, January 2020.

*Carnegie Mellon Leverages AI to give Voice to the Voiceless*, **CMU Press Release**, January 2020.



*Political Polarization and International Conflicts through the Lens of Natural Language Processing*, HAMLET (Human, Animal, and Machine Learning: Experiment and Theory), University of Wisconsin Madison, April 16, 2021.

*Novel Framework to Mitigate Hate Speech*, CAH (Collaboratory Against Hate) lightning talks, Carnegie Mellon University and University of Pittsburgh, April 9, 2021.

*Novel Frameworks for Quantifying Political Polarization and Mitigating Hate Speech*, IDEaS (Center for Informed Democracy and Social-cybersecurity), Carnegie Mellon University, April 9, 2021.

*Political Polarization and International Conflicts through the Lens of NLP*, AI for Social Impact Seminar Series, Penn State University, March 5, 2021.

*Political Polarization and International Conflicts through the Lens of NLP*, Stanford NLP Seminar, February 25, 2021.

*Social, Cultural, and Political Biases through the Lens of NLP*, CMU Portugal Data Science Seminar, February 23, 2021.

*Understanding Conflicts: Internal and International: Through the Lens of Natural Language Processing*, IEEE CIS Kolkata Chapter, December 17, 2020.

*Hope Speech and Help Speech: Surfacing Positivity Amidst Hate*, LTI Colloquium Talk, CMU, September 4, 2020.

*WaterWorks Podcast Ep 1: Q&A with NLP 'Hope Speech' Researcher Ashiqur KhudaBukhsb*, John K. Waters, Pure AI, August 31, 2020.

*Hope Speech and Help Speech: Surfacing Positivity Amidst Hate*, IBM Research Lab, Delhi, July 28, 2020.

*Hope Speech and Help Speech: Surfacing Positivity Amidst Hate*, Indraprastha Institute of Information Technology, Delhi, July 23, 2020.

*Hope Speech and Help Speech: Surfacing Positivity Amidst Hate*, Georgia Tech University, CLAWS research group, Atlanta, July 22, 2020.

*On NLP Methods Robust to Noisy Indian Social Media Data*, AI for Social Good Workshop, CRCS, Harvard University, July 21, 2020.

*Hope Speech and Help Speech: Surfacing Positivity Amidst Hate*, Microsoft Research, India, June 25, 2020.

*Hope Speech and Help Speech: Surfacing Positivity Amidst Hate*, Colloquium Talk, University of California, Riverside, May 29, 2020.

*Hope Speech and Help Speech: Surfacing Positivity Amidst Hate*, AI and Social Good Symposium, CMU, April 23, 2020.

*Hope Speech and Help Speech: Surfacing Positivity Amidst Hate*, CMU AI Seminar, February 4, 2020.

*Voice for Voiceless: Active Sampling to Detect Comments Supporting the Rohingya*, Indian Institute of Technology, Kanpur, January 10, 2020.

*Voice for Voiceless: Active Sampling to Detect Comments Supporting the Rohingya*, TCS Research, Kolkata, January 3, 2020.

*Voice for Voiceless: Active Sampling to Detect Comments Supporting the Rohingya*, Indian Institute of Technology (IIT) Kharagpur, December 5, 2019.

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SOFTWARE RELEASED PUBLICLY

***SATenstein: an automatically configurable local search SAT solver***

*SATenstein-2015* (with Paul Cernek, H. Hoos, Kevin Leyton-Brown; 2015): Updated to include the DCCA and Sparrow SAT solvers, to compile properly on 64-bit machines, and to fix various bugs.

*SATenstein-2009* (with Lin Xu, H. Hoos, Kevin Leyton-Brown; 2009-10): A generalized, highly parameterized solver framework that can be configured to instantiate a broad range of existing high-performance SLS-based SAT solvers, and also over  $10^{23}$  novel algorithms.

### ***L<sub>polyglot</sub>: a minimally supervised language identifier***

**L<sub>polyglot</sub>** (with Shriphani Palakodety; 2020): Updated to a supervised solution trained on 360 annotated labels and millions of weak labels extending support to ten Romanized Indic languages along with 300+ additional languages.

**L<sub>polyglot</sub>** (with Shriphani Palakodety, Jaime G. Carbonell; 2020): A minimally supervised language identifier for both document level and token level language detection that is particularly well-suited to noisy, short social media documents generated in linguistically diverse South Asia.

### JOURNALISM

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Wrote a Sunday feature in Aajkaal, a highly circulated Bengali daily newspaper (294,000 copies of reported circulation per day in 2011), about the challenges and rewards in an international student's life seen through the lens of Bengali students at the School of Computer Science, Carnegie Mellon University.

Author of *Window Seat*, a regular column in Bhinnacharcha, a Bengali periodical. August 2016 – April 2017.

Interviewed several acclaimed film personalities including National Award (India) winning film director Anindya Chatterjee.

### MUSIC COMPOSITION

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Directed music for an Off-Broadway play, "[Half-hearted](#)", produced by M.A.D. Playhouse, staged at Cherry Lane Theater, 2013.

Collaborated with Omkar Deshpande and Manmauji Films on YouTube single [Ishq Hai](#) (25K+ views).

IMDB: <https://www.imdb.com/name/nm6713099/> YouTube: <https://www.youtube.com/user/khudabukhsh>

### CHESS

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Peak chess rating of 2,129 (99.1 percentile) at Chess.com.