

Khyati Mahajan

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EDUCATION

- University of North Carolina at Charlotte** Aug 2018 - May 2023
PhD student in Computer Science under Prof Samira Shaikh
Computational Sociolinguistics and AI GPA: 3.90 / 4
- University of North Carolina at Charlotte** Aug 2018 - Dec 2020
MS student in Computer Science under Prof Samira Shaikh
AI, Robotics and Gaming Concentration GPA: 3.90 / 4
- Dhirubhai Ambani Institute of ICT** Jul 2013 - May 2017
Bachelor of Technology in Information and Communication Technology
with Honors and Minor in Computational Science GPA: 3.13 / 4

WORK EXPERIENCE

- Machine Learning Engineer Intern, ServiceNow Inc.** May 2021 - Ongoing
Built model for question generation and answering using state-of-the-art methods

RESEARCH EXPERIENCE

- Hope Speech Detection for Equality, Diversity and Inclusion at EAACL 2021** Jan 2021 - May 2021
Research Assistant - *Ribarsky Visualization Center, Dept of Computer Science* UNC Charlotte
 - Analyzed social media data for the presence of hope speech in multi-class classification task for identifying uplifting, positive speech online using RoBERTa and XLM-RoBERTa for multilingual data
 - Ranked 1st in English and Tamil among 31 teams, and ranked 3rd in Malayalam among 30 teams at the Hope Speech Detection task for Equality, Diversity and Inclusion at EAACL 2021
- Emotional Contagion and Firestorms** Aug 2018 - May 2021
Research Assistant - *Multi-phase interdisciplinary project, Depts of Public Policy, Psychology, Communication Studies and Computer Science* UNC Charlotte
 - Collected relevant Twitter data for studying political expression on social media and its effect on offline movements
 - Performed statistical analysis using hierarchical regression analysis to study interactions when different linguistic features are used together using R
 - Led the ideation and building of a mock social media platform modeled behind Twitter to perform controlled user studies
 - Conducted pilot study and performed exploratory analysis to quantify and measure the properties of the mock platform pertaining to emotional contagion and regulation for computational social science research
- Hate Speech, Emotional and Moral Expression Online** Aug 2019 - Dec 2020
Research Assistant - *Ribarsky Visualization Center, Dept of Computer Science* UNC Charlotte
 - Analyzed largely unmoderated alternative social media networks for hate speech and misinformation online using data analytics based on Offenseval data and contextual word embeddings such as ELMo and BERT
 - Extracted opinions expressed online on public policy and analyzed perception patterns over time using LDA topic modeling
 - Studied emotional and moral expression surrounding online social and political movements and their impact on information contagion
 - Utilized stance identification for argument mining and summarization by hashtag use to study political and ideological polarization as reflected in online conversations and debates

Emoji Usage on Social Media Aug 2018 - May 2020
 Research Assistant - *Ribarsky Visualization Center, Dept of Computer Science* UNC Charlotte

- Collected emoji usage data associated with the Charlottesville event on Twitter and Gab, a fringe (largely alt-right) community
- Studied differences in symbolism expressed in emoji usage that showcases ideological differences in the political expression on the two platforms
- Studied language use expressing solidarity during the crises events of the Paris attacks, Hurricane Irma, and Charlottesville

Embedded Hunters May 2016 - Jul 2016
 Summer Research Intern - *Computational Intelligence lab, Prof Suresh Sundaram* NTU, Singapore

- Worked on optimization techniques for ML, studying gradient and coordinate descent
- Worked on the Embedded Hunters algorithm to improve black box optimization techniques
- Contributed to the Black-Box Multi-Objective Optimization Benchmarking Platform on Github

PUBLICATION HISTORY

On the Need for Thoughtful Data Collection for Multi-Party Dialogue: A Survey of Available Corpora and Collection Methods August 2021
 SIGDIAL 2021 Paper

A Case Study of Analysis of Construals in Language on Social Media August 2021
 ACL 2021 Student Research Workshop Paper

Towards Understanding How Emojis Express Solidarity in Crisis Events July 2021
 International Conference on Applied Human Factors and Ergonomics (AHFE 2021) Paper

TeamUNCC: Hope Speech Detection using Transfer Learning with Transformers April 2021
 Workshop on Language Technology for Equality, Diversity, Inclusion at EACL 2021 Paper

Community Connect: A Mock Social Media Platform to Study Online Behavior March 2021
 International Conference on Web Search and Data Mining (WSDM) 2021 Demo Paper

Studying The Effect of Emotional and Moral Language on Information Contagion during the Charlottesville Event July 2020
 Widening NLP Workshop at virtual ACL 2020 Poster

Analyzing Event-Specific Language Use on Gab: A Charlottesville case study August 2020
 Southern Data Science Conference 2020, Atlanta, GA, USA Poster

Emoji Usage Across Platforms: A Case Study for the Charlottesville Even Jul 2019
 Widening NLP Workshop at ACL 2019, Florence, Italy Poster
 Internal Conference on Computational Social Science 2019, Amsterdam, The Netherlands

CONFERENCES ATTENDED

Computing Conferences

- Virtual SIGDIAL 2021
- Virtual Association of Computational Linguistics Conference, ACL 2020
- Virtual Annual Conference of the North American Chapter of the Association for Computational Linguistics, NAACL 2021 (D&I Student Chair)
- Virtual International Conference on Computational Linguistics, COLING 2020
- Virtual Empirical Methods in Natural Language Processing, EMNLP 2020 (Volunteer)
- Virtual SIGDIAL 2020
- Virtual Association of Computational Linguistics Conference, ACL 2020 (Volunteer)
- Southern Data Science Conference, SDSC 2020, Atlanta, GA, USA
- Association of Computational Linguistics Conference, ACL 2019, Florence, Italy
- International Conference on Computational Social Science, IC2S2 2019, Amsterdam, The Netherlands

Supporting Widening Participation in Tech

- Mini Fleurix Conference 2021, Charlotte, NC, USA

- Carolinas Women in Computing 2020, Charlotte, NC, USA
- Tapia Celebration for Diversity in Computing 2019, San Diego, California, USA

HONORS AND AWARDS

- *CRA-WP Grad Cohort for Widening Participation 2021 scholar* at New Orleans, LA
- *Graduate Assistant Support Plan (GASP)* since Fall 2018 from *UNC Charlotte* for tuition support
- *Tapia Celebration for Diversity in Computing scholar* at College of Computing and Informatics (CCI), UNC Charlotte
- *Certificate of Recognition* for outstanding academic achievement by *Duke University, North Carolina, US*. Also nominated for the *Duke Talent Identification Program, India 2009* at IIM-Ahmedabad from 500 students all over India

LANGUAGES & SKILLS

Languages English, Hindi, Marathi, Gujarati, French
Skills Python, R, Data Science, Data Analysis, Data Visualization, Natural Language Processing, Natural Language Understanding, Natural Language Generation

STUDENT INVOLVEMENT & VOLUNTEERING

- *Graduate Life Fellow* at UNC Charlotte 2021-2022
- *Graduate Life Ambassador* at UNC Charlotte 2020-2021
- *Student Panelist* for International Cultural Panel at UNC Charlotte 2020-2021
- *Founding Secretary*, the Club for AI Research, UNC Charlotte 2019-2020
- *Founding Member*, Girls Who Code, UNC Charlotte 2019-2020
- *Member*, ACM-W, UNC Charlotte 2018-2020
- *Vice Chairperson*, IEEE Student Body (SB), DAIICT 2016-2017
- *Chairperson*, IEEE SB Women In Engineering Affinity Group, DAIICT 2016-2017