

Shahan A. Memon

Research Associate
New York University

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Research Interests

Computational Social Science; Network Science; Machine Learning; Human-Centered Data Science; Inequality

Specific topics

Online Communities; Science of Science; Education Data Science; Science of Team Science; Collaboration Networks; Gender Inequality;

Work Experience

- Oct. '20 – **Research Associate**, *Computational Social Science Lab, New York University in Abu Dhabi (NYUAD), UAE*.
Working on computational social science projects with *Prof. Bedoor AlShebli*.
- Aug. '17 – **Research Scholar**, *Language Technologies Institute, Carnegie Mellon University (CMU), United States*.
Aug. - '19 Worked on voice forensics projects with *Prof. Rita Singh*, and *Prof. Bhiksha Raj*.
- May. – **Research Intern**, *Social Computing Group, Qatar Computing Research Institute (QCRI), Qatar*.
June. 2015 Worked on the project on “summarizing the perception of Qatar on Twitter” with *Dr. Ingmar Weber*, *Dr. Yelena Mejova*, and *Prof. Susan Dun*.

Education

- Aug. 15, 2019– **MSc. Language Technologies**
Aug. 15, 2020 Language Technologies Institute, School of Computer Science, Carnegie Mellon University, Pittsburgh.
Advised by Prof. Bhiksha Raj, Prof. Rita Singh, and Prof. Kathleen Carley
Thesis: *Characterizing Misinformed Online Health Communities*
Directed Research: *Algorithms for profiling humans from their voice*
- Aug. 18, 2013– **BSc. Computer Science**
May. 21, 2017 Computer Science Department, School of Computer Science, Carnegie Mellon University, Qatar.
Minor: Mathematics
Advised by Prof. Saquib Razak, and Dr. Ingmar Weber
Thesis: *Lifestyle disease surveillance using population search behavior*
Graduated with **College Honors** and **Senior Student Leadership Award**

Teaching Experience

- Spring 2021 **Course Design Assistant**
Applied Data Science for Social Scientists (in Python)
New York University, Abu Dhabi,
Instructor: Prof. Bedoor AlShebli
- Spring 2020, Spring 2021 **Teaching & Course Design Assistant**
Computational Forensics and AI (Graduate Course)
Carnegie Mellon University,
Instructor: Prof. Rita Singh
- Spring 2015 **Teaching Assistant**
Interpretation & Argument
Carnegie Mellon University
Instructor: Prof. Silvia Pessoa
- Spring 2014 **Programming Peer Tutor**
Academic Resource Center (ARC)
Carnegie Mellon University
Course(s): Fundamentals of Programming in Python, Principles of Computing
- Fall 2014 **English Language Instructor**
Language Bridges Program
Carnegie Mellon University

Research Mentoring

- 2022-2023 **Characterizing gender gaps in career mobility using a large-scale public dataset**
Independent Research
New York University, Abu Dhabi,
Student: Shehryar Ahmed Subhani
Co-advised by: Bedoor AlShebli
- 2021 **Characterizing the effect of retractions on collaboration networks of scientists**
Post-Graduation Practical Training Program (PPTP)
New York University, Abu Dhabi,
Student: Tina Krulec
Co-advised by: Bedoor AlShebli, and Kinga Makovi
- 2021 **Studying the career trajectories of post-docs**
Capstone Project
New York University, Abu Dhabi,
Student: Hohan Lee
Co-advised by: Bedoor AlShebli, and Talal Rahwan
- 2021 **Studying the role of firms in wage inequality**
Post-Graduation Practical Training Program (PPTP)
New York University, Abu Dhabi,
Student: Waleed Hashmi
Co-advised by: Bedoor AlShebli, and Wifag Adnan

Publications (Equal contribution is denoted by ‘*’.)

Abbreviations

CIKM	ACM International Conference on Information and Knowledge Management
ICPR	International Conference on Pattern Recognition
IJCNN	IEEE International Joint Conference on Neural Networks
IJSC	International Journal of Sport Communication
INTERSPEECH	Conference of the International Speech Communication Association
JMIR	Journal of Medical Internet Research
NCA	National Communication Association
QFARC	Qatar Foundation Annual Research Conference
SBP-BRIMS	International Conference on Social Computing, Behavioral-Cultural Modeling & Prediction and Behavior Representation in Modeling and Simulation
WebSci	ACM Web Science Conference

[1] Susan Dun, Hatim Rachdi, **Shahan Ali Memon**, Rohith Krishnan Pillai, Yelena Mejova, Ingmar Weber, “Perceptions of FIFA Men’s World Cup 2022 Host Nation Qatar in the Twittersphere”, *IJSC*, 2022. (Impact factor: 1.59, Q-Index: Q2). [link](#)

[2] Navin Kumar et al., “COVID-19 vaccine perceptions in the initial phases of US vaccine roll-out: an observational study on reddit”, *BMC Public Health*, 2022. (Impact factor: 3.98 (2021)). [link](#)

[3] **Shahan Ali Memon**, Saquib Razak, Ingmar Weber, “Lifestyle Disease Surveillance Using Population Search Behavior: A Feasibility Study,” *JMIR*, 2020. (Impact factor: 7.08 (2022), Acceptance Rate: 25%). [link](#)

[4] **Shahan Ali Memon**, Aman Tyagi, David R. Mortensen, Kathleen M. Carley, “Characterizing Sociolinguistic Variation in the Competing Vaccination Communities,” *SBP-BRIMS*, 2020. (Acceptance Rate: 52%) [link](#)

[5] **Shahan Ali Memon**, Kathleen M. Carley, “Characterizing COVID-19 Misinformation Communities Using a Novel Twitter Dataset”, *International Workshop on Mining Actionable Insights from Social Networks (MAISoN)* (in conj. with CIKM), 2020. [link](#)

[6] Hira Dhamyal, **Shahan Ali Memon**, Bhiksha Raj, Rita Singh, “The phonetic bases of vocal expressed emotion: natural versus acted,” *INTER-SPEECH*, 2020. (Acceptance Rate: 47%) [link](#)

[7] Wenbo Zhao, Yang Gao, **Shahan Ali Memon**, Bhiksha Raj, Rita Singh, “Hierarchical Routing Mixture of Experts”, *ICPR*, 2020. [link](#)

[8] ***Shahan Ali Memon**, *Wenbo Zhao, Bhiksha Raj, Rita Singh, “Neural Regression Trees”, *IJCNN*, 2019. [link](#)

[9] **Shahan Ali Memon**, Rohith Krishnan Pillai, Susan Dun, Yelena Mejova, Ingmar Weber, “Public Perception of a Country: Exploring Tweets About Qatar”, *WebSci*, 2017. (Acceptance Rate: 35%). [link](#)

[10] **Shahan Ali Memon**, Rohith Krishnan Pillai, Ingmar Weber, Yelena Mejova, Susan Dun, “Tweets About Qatar Around the World—Who’s Setting the Agenda?”, *QFARC*, 2016. [link](#)

[11] **Shahan Ali Memon**, Hira Dhamyal, Oren Wright, Daniel Justice, Vijaykumar Palat, William Boler, Bhiksha Raj, Rita Singh, “Detecting gender differences in perception of emotion in crowdsourced data”, arXiv, 2021. [link](#)

Selected Presentations

19 July 2022 **Shahan Ali Memon**, Kinga Makovi, Bedoor AlShebli, “Characterizing the effect of scientific retractions on collaboration networks”, IC2S2, 2022, University of Chicago, Chicago. [Slides](#), [Video](#)

6 May 2021 **Shahan Ali Memon**, Saquib Razak, Ingmar Weber, “Lifestyle Disease Surveillance Using Population Search Behavior: Feasibility Study”, Population Association of America (PAA), 2021, Remote. [Slides](#), [Video](#)

22 October 2019 Oren Wright, **Shahan Ali Memon**, “Emotion Recognition from Voice in the Wild”, Annual Research Review, Software Engineering Institute (SEI), Carnegie Mellon University, Pittsburgh. [Slides](#), [Video](#)

16 July 2019 **Shahan Ali Memon**, Wenbo Zhao, Bhiksha Raj, Rita Singh, “Neural Regression Trees”, International Joint Conference on Neural Networks (IJCNN), Intercontinental, Budapest. [Slides](#)

16 April 2019 **Shahan Ali Memon**, Rita Singh, “Introducing Voice Forensics Lab (VFL)”, Annual Meeting, DHS Center of Excellence in Criminal Investigations and Network Analysis (CINA), George Mason University, Arlington. [Slides](#)

Selected Fellowships & Awards

2019–2020 **CMLH Fellow**, Received Fellowship in Digital Health by Center of Machine Learning for Health (CMLH) covering one year of tuition and stipend support, and a \$3,000 in funding to support the underlying research.

2020 **2020 SBP-BRIMS Graduate Student Scholarship**.

2018 **Finalist for Best Overall (Top 6) at HackPrinceton**, Princeton University.

2018 **Finalist for Best Design (Top 6) at HackPrinceton**, Princeton University.

2017 **College Honors**, Received college honors by School of Computer Science, Carnegie Mellon University for completing an undergraduate research thesis on *Lifestyle Disease Surveillance Using Spatio-Temporal Search Intensity Models*.

2017 **Outstanding Service to the Computer Science Community**, School of Computer Science, CSD, CMU, Qatar.

2017 **Audience Choice Award at NYUAD Hackathon for Social Good**, New York University, Abu Dhabi.

2017 **Senior Student Leadership Award**, Carnegie Mellon University.

2017 **Education Above All Humanitarian Technology Award at CarnegieApps Hackathon**, Carnegie Mellon University.

2015 **IMPAQT Cultural Ambassador**, Selected by the Division of Student Affairs as a cultural ambassador for CMU Qatar under *Initiating Meaningful Pittsburgh and Qatar Ties (IMPAQT)* program.

2012 **Second Position at Speed Programming Competition**, National University of Computer and Emerging Sciences (NUCES).

2011 **Sixth Position among 30k+ students in District Hyderabad**, Board of Intermediate and Secondary Education, Hyderabad.

Media

- 22 October 2019 “Learn how to paint from the Master himself in The Rembrandt Tutorials”, *JWT Newsroom* on our groups’ work on recreating the voice of Rembrandt from his portraits.
- 24 April 2017 “CMU-Q students take audience choice award at regional Hackathon”, *CMUQ News*, *The National* on my team’s winning NYUAD Hackathon project ‘*Teslam*’ for visualizing actionable data in the Arab world related to non-communicable diseases.
- 5 Feb 2017 “Student app helps predict threats to education in conflict zones”, *CMUQ News*, *Gulf Times*, on my team’s winning CarnegieApps Hackathon project: ‘*Education Attack Map*’.

Service and Leadership

- **Reviewer**, IEEE International Conference on Machine Learning and Applications (IEEE ICMLA)
- **Reviewer**, Journal of Medical Internet Research (JMIR)
- **Reviewer**, Elsevier’s Information Processing and Management Journal
- **Student Moderator**, SBP-BRiMS Conference 2020
- **Board Member**, Academic Review Board and University Disciplinary Committee (ARB-UDC), Carnegie Mellon University, 2015 - 2017
- **Peer Health Advocate (PHA)**, Mental Health Advocate, Student Health Services, Carnegie Mellon University, 2016 - 2017
- **Co-Founder**, Mindfulness Room, Student Life Experience, Carnegie Mellon University, 2016
- **President**, Office of International Education (OIE) Advisory Board, Carnegie Mellon University, Jan 2014 - May 2017
- **President**, Andrew Model United Nations, Carnegie Mellon University, Aug 2015 - Dec 2016
- **Community Development Advisor (Residential Advisor)**, Housing and Residence Life, HBKU, Qatar, Aug 2015 - May 2017
- **Orientation Counselor (OC)**, Carnegie Mellon University, 2014 - 2016
- **Debater**, Carnegie Mellon Debating Society, Aug 2013 - Aug 2015

Selected Courses

- Computational Social Science (Audit), *Spring’21*
- Natural Language Processing (11-611), *Spring’20*
- Measuring Social (94-823), *Spring’20*
- Linguistics: Human Language for AI (11-724), *Fall’19*
- Introduction to Deep Learning (11-785), *Spring’19*
- Web Application Development (17-637), *Fall’18*
- Computational Forensics and AI (15-498), *Spring’17*
- Sustainability, *Spring’17*
- Graph Theory (21-484), *Fall’16*
- Machine Learning (10-601), *Spring’16*
- Introduction to Text Processing (15-383), *Fall’14*

Interests

Cooking, Blogging, Cycling, Swimming, Cross-stitching

People who can say nice things about me

Prof. Bhiksha Raj, Professor, Language Technologies Institute, School of Computer Science, Carnegie Mellon University
Relationship: Mentor, research advisor
E-mail: bhiksha@cs.cmu.edu

Prof. Rita Singh, Associate Research Professor, Language Technologies Institute, School of Computer Science, Carnegie Mellon University
Relationship: Mentor, research advisor
E-mail: rsingh@cs.cmu.edu

Dr. Ingmar Weber, Alexander von Humboldt Professor in AI, Saarland University (Prev. Research Director at Qatar Computing Research Institute)
Relationship: Mentor, BSc. advisor
E-mail: iweber@cs.uni-saarland.de

Prof. Bedoor AlShebli, Assistant Professor of Computational Social Science, Social Science Division, New York University, Abu Dhabi
Relationship: Mentor, research advisor
E-mail: bedoor@nyu.edu

Prof. Kinga Makovi, Assistant Professor of Social Research and Public Policy, Social Science Division, New York University, Abu Dhabi
Relationship: Research Advisor
E-mail: km2537@nyu.edu

Prof. Kathleen M. Carley, Professor, Institute of Software Research, School of Computer Science, Carnegie Mellon University
Relationship: MSc. thesis advisor
E-mail: kathleen.carley@cs.cmu.edu

Prof. Talal Rahwan, Associate Professor, New York University, Abu Dhabi
Relationship: Research advisor
E-mail: talal.rahwan@nyu.edu

Prof. Saquib Razak, Associate Teaching Professor, Computer Science Department, School of Computer Science, Carnegie Mellon University
Relationship: BSc. advisor
E-mail: srazak@andrew.cmu.edu