Sashank Santhanam

Department of Computer Science
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Education

University of North Carolina – Charlotte   Charlotte, NC
Ph.D. in Computer Science   expected May 2021
- Research area: Dialogue Systems, Human Behavior Modeling
- Advisors: Dr. Samira Shaikh
- Committee: Dr. Wlodek Zadrozny, Dr. Minwoo Jake Lee, Dr. Nicholas Davis

University of North Carolina – Charlotte   Charlotte, NC
MS in Computer Science   Dec 2015
- Research area: Social Media Analysis
- Advisors: Dr. Shaoting Zhang

Anna University   Tamil Nadu, India
BE in Computer Science and Engineering   May 2014
- Research area: Bayesian Networks

Conference Publications

12) **Santhanam S**., Shaikh, S., "Modeling Conversation Context by Adapting Cognitive Architectures", in 1st Workshop on Discourse Structure in Neural NLG 2019, Tokyo, Japan

11) **Santhanam S**., Lee M., Shaikh, S., "Towards Understanding the Importance of Relationships between Speakers for Dialogue Generation", [Under Review]

10) **Santhanam S**., Shaikh, S., "Emotional Neural Language Generation Grounded in Situational Contexts", in 4th Workshop on Computer Creativity in Natural Language Generation 2019, Tokyo, Japan

9) **Santhanam S**., Shaikh, S., "Towards Best Experiment Design in Evaluating Dialogue System Output", in 12th International Natural Language Generation Conference 2019, Tokyo, Japan

8) Srinivasan V., **Santhanam S**., Shaikh, S., "Natural Language Generation Using Reinforcement Learning with External Rewards", in 18th IEEE International Conference on Machine Learning and Applications - ICMLA 2019, Boca Raton, Florida

7) **Santhanam S**., Shaikh, S., "Salient Context Identification from Memory for Neural Dialog Systems", [Under Review, 2019]

6) Wesslen, R., **Santhanam, S.**, Karduni, A., Cho, I., Shaikh, S., Dou, W., "Investigating Effects of Visual Anchors on Decision-Making about Misinformation", in 21st International IEEE Conference on Visualization (EuroVis), Porto, Portugal, to appear,

5) Karduni, A., Cho, I. Wesslen, R., **Santhanam, S.**, Volkova, S., Arendt, D., Shaikh, S., Dou, W., "Vulnerable to Misinformation? Verifi!", in 24th ACM Conference on Intelligent User Interfaces, Los Angeles, USA, Mar. 16-20 2019,

4) Karduni, A., Wesslen, R., **Santhanam, S.**, Cho, I., Volkova, S., Arendt, D., Shaikh, S., Dou, W., "Can You Verifi This? Studying Uncertainty and Decision-Making about Misinformation in Visual Analytics", in 12th International AAAI Conference on Web and Social Media, Stanford, USA, Jun. 25-28 2018, (**Acceptance Rate**: *16%*)

3) **Santhanam S**., Srinivasan, V., Glass, S., Shaikh, S., "I Stand With You: Using Emojis to Study Solidarity in Crisis Events", in Proceedings of 1st International Workshop on Emoji

Understanding and Applications in Social Media (ICWSM), Stanford, USA, Jun. 25-28 2018, published by AAAI.

2) **Santhanam S**., Shaikh, S., "I Stand With You: Detecting and Characterizing Expressions of Solidarity in Social Media", in 4th International Conference on Computational Social Science (IC2S2), Chicago, USA, July. 12-15 2018.

1) Cho, I., Wesslen, R., Karduni, A., **Santhanam, S.**, Shaikh, S., Dou, W., "The Anchoring Effect in Decision-Making with Visual Analytics", in 12th International IEEE Conference Visual Analytics Science and Technology, Phoenix, Arizona, Oct. 1-6 2017, (***Acceptance Rate**: 22% - 25%*)

Poster Presentations

3) **Santhanam S**., Shaikh, S., "Salient Context Identification from Memory for Neural Dialog Systems", in 2nd Southern Data Science Conference, Atlanta, USA, Apr. 13-14 2019.

2) Dalton, A., Zemal, A., Masoumzadeh, A., Bhatia, A., Dorr, B., Mather, B., Hebenstreit, B., Al-Shaer, E., Khoja, E., Castillo, E.J., Bunch, L., Vlahovic, M., Liu, P., Pirolli, P., Shah, R., Cartacio, S., Shaikh, S., **Santhanam S**., Dhaduvai, S., Strzalkowski, T., Karimi, Y., "Modeling Social Engineering Risk using Attitudes, Actions, and Intentions Reflected in Language Use", in 32nd International FLAIRS Conference, Florida, USA, May. 19-22 2019. [Alphabetical Ordering]

1) **Santhanam S**., Shaikh, S., "Propaganda or Clickbait? Understanding and Classifying Types of Misinformation using Recurrent Neural Networks", in 1st Southern Data Science Conference, Atlanta, USA, Apr. 13-14 2018.

Press Coverage

1) **Santhanam S**., Shaikh, S., "Understanding the emoji of solidarity", in The Conversation, July 16, 2018

Research Experience

University of North Carolina – Charlotte   Charlotte, NC
Ph.D. Candidate
Conversational Agents   2018 – Present
- Creating conversational agents that adapt standard model of cognition.
- Relationship modeling and understanding its importance in dialogue systems along with incorporating personality to dialogue systems.
- Producing emotional messages and engaging countermeasures strategies for social engineering and phishing attacks. [DARPA Grant]
- Engage in a conversation with attacker to solicit information by moving all the kill chain phases. [DARPA Grant]

Human Behavior Modeling   2017 – Present
- Analysis of Twitter and Gab.com to understand how the online community comes together to express messages of solidarity through text and emojis
- Cross-platform analysis on Twitter and Gab.com for abusive language through various crisis events.

Understanding Decision Making   2017 – Present
- Evaluating the impact of anchoring and confirmation bias on decision making through visual analytics tasks on misinformation.
- Evaluating the impact of cognitive biases and experiment design towards conversational dialogue evaluation

Professional Experience

Walmart, Global Shared Service   Charlotte, NC
Data Analyst   2015 – 2016

- Developed software to help the associates at Walmart to process invoices and other receipts.
- Reduced workload of the associates by auto-matching invoices and the receipts.
- Developed workflows in alteryx and dashboards using Tableau to help in tracking of the backlogs.

Indian Institute of Technology,Madras   Tamil Nadu, India
Intern   2015 – 2016
- Mentor: Dr. Saji K. Matthew
- Implemented a scoring algorithm in R to analyze the emotional variation on Twitter data during sporting events

Awards

Visual Dialog - Best Project Award   Lowell, MA
Conversational International Summer School   2019

Association for Advancement of Artificial Intelligence   Stanford, CA
Graduate Travel Support   2017 – Present

University of North Carolina – Charlotte   Charlotte, NC
Graduate Assistant Support Plan(GASP)   2017 – Present

Professional Activities
1) Reviewing
- Reviewer of the **2nd International Workshop on Emoji Understanding and Applications in Social Media Co-located with The Web Conference 2019.**
- Reviewer of **NAACL 2019.**
- Reviewer of **ACL 2019.**
- Reviewer of **ACM CHI Conference on Human Factors in Computing Systems, 2019.**
- Reviewer of **WiNLP 2019.**
- Reviewer of **AAAI 2020.**

2) Invited Lectures
- **Natural Language Processing** - Neural Networks for Natural Language Generation
- **Natural Language Processing** - Machine Translation
- **Computation Human Behavior Modeling (ITCS 8050/6050, PSYC-6099)** – Survey of Natural Language Generation Techniques
- **Applied Machine Learning -** Introduction to Reinforcement Learning

References
1) Dr. Samira Shaikh
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Department of Computer Science,
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2) Dr. Minwoo Lee
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Department of Computer Science,
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9201 University City Blvd, Charlotte, NC- 28262,
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Email: minwoo.Lee@uncc.edu