Devamanyu HAZARIKA

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BRIEF INTRODUCTION

I am an Applied Scientist at Amazon Alexa AI, where I work with Mahdi Namazifar and Dilek Hakkani-Tur. My work primarily involves researching for novel skills in Alexa, particularly for multi-turn social conversations.

I received my PhD in Computer Science from National University of Singapore in 2021, where I was advised by Dr. Roger Zimmermann. There, I received the President's Graduate Fellowship, NUS and have been affiliated with Media Management Research Lab and Deep Cognition and Language Research Lab.

RESEARCH INTERESTS

Broad Interests	Natural Language Processing, Multimodal Machine Learning, Domain Adaptation
Applications	Dialogue Systems, Affective Computing, Sarcasm Analysis.

EDUCATION

2017-2021	**National University of Singapore** Ph.D. Candidate in Computer Science Thesis: "Contextually Grounded Affective Analysis of Media" Advisor: Roger Zimmermann	GPA: 4.75/5
2013-2017	**National Institute of Technology, Warangal** B.Tech. in Computer Science and Engineering Thesis: "Benchmarking Multimodal Sentiment Analysis" Advisor: RBV Subramaanyam	GPA: 9.56/10 Gold Medal

RESEARCH INTERNSHIPS

SEPT- 2020 MAY- 2021	Amazon Alexa AI *Applied Scientist II, Intern* Zero-Shot Controllability in Knowledge-Grounded Neural Response Generation Mentored by: Mahdi Namazifar, Dilek Hakkani-Tur Preprint: https://arxiv.org/pdf/2106.06411.pdf	
MAY-JUL 2019	Nanyang Technological University *Research Assistant* Emotion Recognition in Conversations, Sarcasm Analysis using CNNs Advised by: Soujanya Poria, Erik Cambria Paper: https://www.aclweb.org/anthology/P19-1050.pdf	

Honors and Awards

2021	Outstanding Reviewer for ACL 2021
2021	IEEE CIM Outstanding Paper Award
2019-2021	President's Graduate Fellowship, National University of Singapore
2019	Research Achievement Award, School of Computing, NUS
2017-2019	NUS Research Scholarship, National University of Singapore
2017	Department Gold Medal (Computer Science), NIT, Warangal
2015	Summer Research Fellow, Indian Academy of Sciences
2014	Alumni's Gold Medal for Scholastic Excellence, NIT, Warangal

Teaching

2019-2020	CS 3243: Intro to Artificial Intelligence
2018-19 2017-18	CS 2113: Software Engineering

Academic Publications

Conferences

2021

Zero-Shot Controlled Generation with Encoder-Decoder Transformers, **Devamanyu Hazarika**, M Namazifar, and Dilek Hakkani-Tur, AAAI 2022

Analyzing the Domain Robustness of Pretrained Language Models, Layer by Layer, AR Kashyap, L Mehnaz, B Malik, A Waheed, **Devamanyu Hazarika**, M-Y Kan, and R Shah, ADAPT-NLP, EACL 2021

Domain Divergences: a Survey and Empirical Analysis, AR Kashyap, **Devamanyu Hazarika**, Min-Yen Kan, and R Zimmermann, NAACL 2021

2020

MISA: Modality-Invariant and -Specific Representations for Multimodal Sentiment Analysis, **Devamanyu Hazarika**, R Zimmermann, and S Poria, ACM MM 2020

Methods for Numeracy-Preserving Word Embeddings, D Sundararaman, S Si, V Subramanian, G Wang, **Devamanyu Hazarika**, and L Carin, EMNLP 2020

KinGDOM: Knowledge-Guided DOMain adaptationfor sentiment analysis, D Ghosal, **Devamanyu Hazarika**, N Majumder, A Roy, S Poria, and R Mihalcea, ACL 2020

2019

Towards Multimodal Sarcasm Detection (An Obviously Perfect Paper), S Castro, **Devamanyu Hazarika**, V Pérez-Rosas, R Zimmermann, R Mihalcea, and S Poria, ACL 2019

MELD: A Multimodal Multi-Party Dataset for Emotion Recognition in Conversations , S Poria, **Devamanyu Hazarika**, N Mazumder, G Naik, E Cambria, and R Mihalcea, ACL 2019

DialogueRNN: An Attentive RNN for Emotion Detection in Conversations , N Mazumder, S Poria, **Devamanyu Hazarika**, R Mihalcea, A Gelbukh, and E Cambria, AAAI 2019

2018	*ICON: Interactive Conversational Memory Network for Multimodal Emotion Detection* , **Devamanyu Hazarika**, S Poria, R Mihalcea, E Cambria, and R Zimmermann, EMNLP 2018

CASCADE: Contextual Sarcasm Detection in Online Discussion Forums, **Devamanyu Hazarika**, S Poria, S Gorantla, E Cambria, R Zimmermann, and R Mihalcea, COLING 2018

CMN: Conversational Memory Network for Emotion Recognition in Dyadic Dialogue Videos, **Devamanyu Hazarika**, S Poria, A Zadeh, E Cambria, L.P. Morency, and R Zimmermann, NAACL 2018

Modeling Inter-Aspect Dependencies for Aspect-Based Sentiment Analysis, **Devamanyu Hazarika**, S Poria, P Vij, G Krishnamurthy, E Cambria, and R Zimmermann, NAACL 2018

SenticNet 5: Discovering conceptual primitives for sentiment analysis by means of context embeddings, E Cambria, S Poria, **Devamanyu Hazarika**, and K Kwok, AAAI 2018

2017 *Multi-level multiple attentions for context-aware multimodal sentiment analysis*, S Poria, E Cambria, **Devamanyu Hazarika**, N Mazumder, A Zadeh, and L.P. Morency, ICDM 2017

2016 *Context-dependent sentiment analysis in user-generated videos*, S Poria, E Cambria, **Devamanyu Hazarika**, N Mazumder, A Zadeh, and L.P. Morency, ACL 2017

A Deeper Look into Sarcastic Tweets using Deep Convolutional Neural Networks, S Poria, E Cambria, **Devamanyu Hazarika**, and P Vij, COLING 2016

Journals

2021 *Recognizing Emotion Cause in Conversations*, S Poria, N Majumder, **Devamanyu Hazarika**, D Ghosal, R Bhardwaj, S Jian, R Ghosh, N Chhaya, A Gelbukh, and R Mihalcea, Cognitive Computation 2021

Multimodal research in vision and language: A review of current and emerging trends, S Uppal, S Bhagat, **Devamanyu Hazarika**, N Majumder, S Poria, R Zimmermann, and A Zadeh, Information Fusion 2021

2020 *Conversational Transfer Learning for Emotion Recognition*, **Devamanyu Hazarika**, S Poria, R Zimmermann, and R Mihalcea, Information Fusion 2020

Beneath the tip of the iceberg: Current challenges and new directions in sentiment analysis research, S Poria, **Devamanyu Hazarika**, N Mazumder, and R Mihalcea, IEEE Transactions on Affective Computing

2018 *Recent Trends in Deep Learning Based Natural Language Processing*, T Young, **Devamanyu Hazarika**, S Poria, and E Cambria, IEEE Computational Intelligence Magazine 2018 (IEEE CIM Outstanding Paper Award)

Multimodal Sentiment Analysis: Addressing Key Issues and Setting up Baselines, S Poria, N Mazumder, **Devamanyu Hazarika**, E Cambria, A Hussain, and A Gelbukh, IEEE Intelligent Systems

Multimodal Sentiment Analysis using Hierarchical Fusion with Context Modeling, N Majumder, **Devamanyu Hazarika**, A Gelbukh, E Cambria and S Poria, Knowledge Based Systems 2018

Research Impact and Coverage

Bibliometrics	Google Scholar citations: **4870**; h-index: **19**
	Semantic Scholar citations: **3693**; h-index: **19**
Invited Talks	Google Research NLP Seminar, August 2021
	Computing Research Week, NUS Singapore, August 2021
Emotion Analysis	https://paperswithcode.com/newsletter/2
Deep-learning for NLP	https://nlpoverview.com
	https://www.kdnuggets.com/2018/06/
	detecting-sarcasm-deep-convolutional-neural-networks.html
Sarcasm Analysis	https://www.kdnuggets.com/2018/09/
	deep-learning-nlp-overview-recent-trends.html

Professional Services

Professional Positions	Volunteer Chair, SSNLP 2019
	Jury Member at Singapore Linguisitcs Olympiad (SLingO) 2021
Program Committee Member	**ACL** 2020, 2021, 2022
	EMNLP 2018, 2019, 2021
	NeurIPS 2021
	NAACL 2019, 2021
	COLING 2018, 2020
	AAAI 2019, 2020, 2021
	ACMMM 2019, 2020
	ICME 2020, 2022
Journal Reviewer	Cognitive Computation,
	Computational Linguistics,
	Information Fusion,
	IEEE Multimedia Magazine,
	Neurocomputing,
	Transactions of Affective Computing,
	Transactions on Audio, Speech and Language Processing,
	Transactions on Asian and Low-Resource Language Information
	Processing

Interests and Activities

President	ACM Student Chapter, NIT Warangal 2015-17
	Organized several workshops to promote computer science amongst junior students.
Executive Member	Music Club, NIT Warangal
	Bachelor of Music in Hindustani Classical Music.
Sports	Tennis, National School Games 2007