

KHYATHI RAGHAVI CHANDU

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RESEARCH INTERESTS

Multimodal Learning & Grounding, Text Generation, Multilinguality

EDUCATION

2021 **Carnegie Mellon University, PhD in Language Technologies**
2018 **Carnegie Mellon University, Masters in Language Technologies**
2016 **IIIT-H, Bachelors in Computer Science**

WORK EXPERIENCE

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| AI2 | Research Scientist, |
| Meta AI | Research Scientist, FEB 2022 - NOV 2022 |
| Meta AI | Research Intern, MAY 2021 - AUGUST 2021 ‣ Multimodal Conversational AI |
| Google Research | Research Intern, MAY 2020 - AUGUST 2020 ‣ Weak Supervision of content selection for better Controllability in Image Captioning |
| Apple | Research Intern, MAY 2019 - AUGUST 2019 ‣ Transfer Learning for Code-Switched Named Entity Recognition |
| Univ. of Pennsylvania | Research Intern, MAY 2015 - AUGUST 2015 ‣ Converting unstructured medical abstracts to structured abstracts. |

TALKS

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| AI2 | Invited Talk, AUG 2022 ‣ Topic : Anchoring Multiview Narrative Generation |
| Univ of Utah | Colloquium Talk, APRIL 2022 ‣ Topic : Multiview Narrative Generation Link |
| Univ of Pittsburgh | Guest Lecture in Introduction to NLP, DEC 2021 ‣ Topic : Grounding and Multimodality Link |
| Microsoft Research | Talk, MAY 2021 ‣ Topic : Multimodal Narrative Intelligence |
| Google | PhD Intern Research Conference, JULY 2020 ‣ Topic : Towards effective controllability of multimodal narrative generation |
| WiNLP at ACL'20 | Closing Remarks from organizers, JULY 2020 ‣ Topic : Progress of Widening NLP and lessons learnt from virtual workshop |
| CMU | LTI Summer Seminar Series, JULY 2020 ‣ Topic : Components of Neural Text Generation Details |
| CMU | Guest Lecture in Neural Networks for NLP, APRIL 2020 ‣ Topic : Natural Language Generation Youtube Link |
| CMU | Guest Lecture in Introduction to NLP, APRIL 2020 & MAY 2021 ‣ Topic : Natural Language Generation |
| Facebook | Invited Research Talk, OCTOBER 2019 ‣ Topic : Multimodal Narrative Intelligence |
| Apple | Guest Talk, AUGUST 2019 ‣ Topic : Visual Story and Storyboard Generation |
| Univ of West Scotland | Invited Talk, APRIL 2021 ‣ Topic : Content Anchoring In Multimodal Texts : A Prequel with PhD advice |

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| Question Answering | CMU, Spring 2018 |
| Design & Engineering of Intelligent Information Systems | CMU, Fall 2017 |
| Graphics | IIIT-H, Spring 2016 & Spring 2014 |
| Natural Language Processing | IIIT-H, Fall 2015 |
| Natural Language Applications | IIIT-H, Spring 2015 |
| Structured Systems Analysis and Design | IIIT-H, Fall 2014 |
| Science | IIIT-H, Fall 2013 |

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| Organizer | <ul style="list-style-type: none">› Workshop on ‘Generation, Evaluation, and Metrics’ at EMNLP 2022 [link]› Workshop on Narrative Understanding at NAACL 2022 [link]› Widening NLP Workshop at EMNLP 2021 [link]› Widening NLP at ACL 2020 [link]› CMU LTI Open House Poster Session 2019 |
| Co-chair | <ul style="list-style-type: none">› Doctoral Symposium at AIMLSystems [link]› Academic Inclusion, Diversity & Inclusion at ACL 2020, ACL 2021, NAACL 2022, [link] |
| Panel Moderator | <ul style="list-style-type: none">› EACL 2021 (Topic : Low resource languages) [link]› WiNLP Satellite event at AACL 2020 (Topic : Social Biases and Future of NLP) [link]› Academic Inclusion at ACL 2020 |
| PC Member | <ul style="list-style-type: none">› Humanizing AI at IJCAI 2019 and 2018, [link] |
| Conference Reviewer | <ul style="list-style-type: none">› AAAI 2023, EMNLP 2022, COLING 2022, NAACL 2022, EMNLP 2021, EMNLP 2020, ACL 2020 (Outstanding reviewer), EACL 2021, COLING 2020, AACL 2020, EACL 2020, AAAI 2020, ACL 2019, AAAI 2019, NAACL 2018; GenChal Proposals at INLG 2022 |
| Workshop Reviewer | <ul style="list-style-type: none">› GEM 2021, CALCS-NAACL’21, ALVR-ACL 2020, SRW-ACL 2020, WiNLP-ACL 2020, CALCS-ACL 2018, Code-Switching Workshop-Interspeech 2020 |
| Journal Reviewer | <ul style="list-style-type: none">› JAIR 2022, TALLIP 2020 |
| Editor | <ul style="list-style-type: none">› ML @ CMU Blog [link] |

 **ACADEMIC HONORS & AWARDS**

- › **Amazon Simbot Challenge** : Our team was among the 10 university teams to be selected to take part in the Simbot Challenge.
- › **Rising Stars EECS 2020** : Selected and invited to Rising Stars 2020 at UC Berkeley [\[link\]](#)
- › **Shortlisted** and Nominated for **Apple Fellowship** 2020
- › **Winners of BioAsq Challenge** : in the sixth edition of BioAsq Challenge [\[link\]](#)
- › **CMU LTI Graduate Fellowship** : Fully funded covering tuition, travel expenses & monthly stipend.
- › **Amazon Alexa Prize Sponsorship** : Our team was amongst 12 others around the world to be awarded 100,000\$ stipend by Amazon to compete in the Alexa Prize.
- › **ISCA Grant** : The grant includes 1-year ISCA membership and cash amount to support travel costs.
- › **S.N. Bose Scholarship 2015** : Awarded to top 1.5% students at national level to carry out summer research internship in the US. [\[link\]](#)
- › **Dean’s Research Award -IIIT-H 2015** : Awarded for undergraduate students actively pursuing research.
- › **Deans’ Academic Merit List** : Received in Fall 2011, Spring 2012, Fall 2013, Spring 2014 in IIIT-H.
- › **Best All Rounder Student IIIT-H 2015** : Awarded for consistent involvement and all round contributions in academics and extra-curricular activities.
- › **Best Project in IISc Summer School** (2nd place)
- › **Best Sports Woman - IIIT-H** : For 3 consecutive academic years 2012, 2013, 2014.
- › **Best Outgoing Student** : Awarded in Sanghamitra School for all round performance.

Conferences

- › *Maximizing Task Consistency Improves Continual Learning for Dialogue State Tracking* (under review)
- › **Khyathi Chandu**, Piyush Sharma, Ashish Thapliyal, Beer Changpinyo, Radu Soricut, “*Denosing Large-Scale Image Captioning from Alt-text Data using Content Selection Models*” (**COLING 2022**)
- › **Khyathi Chandu**, Alborz Geramifard *Multilingual Multimodality : A Taxonomical Survey of Datasets, Techniques, Challenges and Opportunities* (under review)
- › *GEMv2 : Multilingual NLG Benchmarking in a Single Line of Code* (under review) [\[paper\]](#)
- › *Insights from Collecting a Large Corpus of Assessments of Generated Text* (to be submitted)
- › *Attend, Segment and Select : A Query-based Referring Video Segmentation* (under submission)
- › Parul Chopra, Sai Krishna, Alan W Black, **Khyathi Chandu** *Switch Point biased Self-Training : Re-purposing Pretrained Models for Code-Switching* (**EMNLP 2021**)
- › **Khyathi Chandu**, Yonatan Bisk, Alan W Black *Grounding ‘Grounding’ in NLP* (**ACL 2021 Findings**) [\[paper\]](#)
- › *The GEM Benchmark : Natural Language Generation, its Evaluation and Metrics* [\[paper\]](#)
- › **Khyathi Chandu**, Alan W Black, “*Positioning yourself in the maze of Neural Text Generation*” (submitted, under review)
- › **Khyathi Chandu**, Ruo Ping, Alan W Black, “*Reading Between the Lines : Exploring Infilling in Visual Narratives*” (**EMNLP 2020**) [\[paper\]](#)
- › **Khyathi Chandu**, Alan W Black, “*Style Transfer as Vantage Point for Code-Switching*” (**InterSpeech 2020**) [\[paper\]](#)
- › **Khyathi Chandu**, Eric Nyberg, Alan W Black, “*Storyboarding of Recipes : Grounded Contextual Generation*” at **ACL 2019**. [\[paper\]](#)
- › **Khyathi Chandu**, Sai Krishna, Sunayana Sitaram, Alan W Black, “*Speech Synthesis for Mixed-Language Navigation Instructions*” **InterSpeech 2017**. [\[paper\]](#)
- › **Khyathi Chandu**, Manoj Chinnakotla, Manish Shrivastava, “*Answer ka type kya he? Learning to classify questions in code-mixed language*”. in International Conference on World Wide Web **WWW 2015** . [\[paper\]](#)
- › **Khyathi Chandu**, Manoj Chinnakotla, Alan W Black, Manish Shrivastava “*WebShodh : A Code Mixed Factoid Question Answering System for Web*” in **CLEF 2017** [\[paper\]](#)
- › Divya Jitta, **Khyathi Chandu**, Harsha Pamidipalli and Radhika Mamidi, “*Neer Intention enti?*” *Towards Dialog Act Recognition in Code-Mixed Conversations*. **IALP 2017**. [\[paper\]](#)
- › Prathyusha Kuncham, **Khyathi Chandu** , Kovida Nelakuditi, Dipti Misra Sharma, “*Domain Adaptation in Morphological Analysis*”. in International Journal of Languages, Literature and Linguistics 2015. [\[paper\]](#)

Journals

- › Sunayana Sitaram, **Khyathi Chandu**, Sai Krishna Rallabandi, Alan W Black *A Survey of Code-switched Speech and Language Processing* (under review) [\[paper\]](#)

Proceedings

- › Proceedings of the The Fourth Workshop on Narrative Understanding
- › Proceedings of the The Fifth Widening Natural Language Processing Workshop
- › Proceedings of the The Fourth Widening Natural Language Processing Workshop [\[paper\]](#)

Theses

- › *PhD Thesis Proposal : Effective Anchoring of Multimodal Narrative Generation* (CMU) [\[paper\]](#)
- › *Code-Mixed Question Answering for Indian Languages* (Research thesis at IIIT-H)

Workshops

- › Sai Muralidhar Jayanthi, Kavya Nerella, **Khyathi Chandu**, Alan Black *CodemixedNLP: An Extensible and Open NLP Toolkit for Code-Mixing* in CALCS at NAACL 2021. [\[paper\]](#)
- › **Khyathi Chandu***, Ruo-Ping Dong*, Alan Black. *Entity Skeletons for Visual Storytelling* in LVU at CVPR 2020, ALVR at ACL 2020. [\[paper\]](#)
- › **Khyathi Chandu***, Shrimai Prabhumoye*, Ruslan Salakhutdinov, Alan Black. *“My Way of Telling a Story”: Persona based Grounded Story Generation* in StoryNLP at ACL 2019. [\[paper\]](#)
- › Soumya Wadhwa, **Khyathi Chandu**, Eric Nyberg. *“Comparative Analysis of Neural QA models on SQuAD”* in MRQA at ACL 2018. [\[paper\]](#)
- › **Khyathi Chandu**, et al. *“Code-Mixed Question Answering Challenge: Crowd-sourcing Data and Techniques”* in CALCS at ACL 2018. [\[paper\]](#)
- › **Khyathi Chandu**, Thomas Manzini, Sumeet Singh, Alan Black. *“Language Informed Modeling of Code-Switched Text.”* in CALCS at ACL 2018. [\[paper\]](#)
- › **Khyathi Chandu**, Parvathy Geetha, Alan Black. *“Tackling Code-Switched NER: Participation of CMU.”* in CALCS at ACL 2018. [\[paper\]](#)
- › **Khyathi Chandu**, Aakanksha Naik, Aditya Chandrasekar, Zi Yang, Niloy Gupta, Eric Nyberg. *“Tackling Biomedical Text Summarization: OAQA at BioASQ 5B.”* in BioNLP at ACL 2017. [\[paper\]](#)
- › *Ontology-Based Retrieval & Neural Approaches for BioAsq Ideal Answer Generation* in BioAsq at EMNLP 2018. [\[paper\]](#)
- › *Extraction Meets Abstraction: Ideal Answer Generation for Biomedical Questions* in BioAsq at EMNLP 2018. [\[paper\]](#)

Technical Reports

- › Amazon Alexa team *“Building CMU Magnus from User Feedback.”* in Amazon Alexa Prize Summit 2017. [\[Report\]](#)
- › *“Textually Enriched Neural Module Networks for Visual Question Answering.”* [\[Arxiv\]](#)
- › *“Entity Skeletons as Intermediate Representations for Visual Storytelling.”* at BayLearn 2020 [\[link\]](#)

Book

- › *“Language Technologies for Code-Switching: an account of sequence, semantic and generation tasks.”* online soon

MENTORED STUDENTS

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| Project : Self Supervised Low Resource Learning | Parul Chopra (MS, CMU), accepted to EMNLP'21 |
| Project : Content in Visual storytelling | Ruo-Ping Dong (MCDS student, CMU) Work published at ALVR'20 and EMNLP'20 |
| Project : Modular toolkit for code-switching | Sai Muralidhar (MIS, CMU), Work published at CALCS'21 |
| Project : Biomedical Summarization | Yutong Li, Nicholas Gekakis, Qiuze Wu (MCDS students, CMU) Winning team at BioAsq'18 |
| Project : Code-Switching NER | Parvathy Geetha (MS in ECE, CMU), Work published at CALCS'18 |
| Project : Unpaired Style Transfer | Sunjana Kulkarni, Undergrad, CMU |