

# SANKET VAIBHAV MEHTA

Ph.D. Student | School of Computer Science | Carnegie Mellon University

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## RESEARCH INTERESTS

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- Machine Learning, Natural Language Processing, Deep Learning, Optimization
- Focus areas: Learning from limited labeled data, multiple tasks, non-stationary data distributions (Continual/Lifelong Learning, Transfer Learning, Meta-Learning, Multi-Task Learning)

## EDUCATION

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**Carnegie Mellon University**, Pittsburgh JULY 2020-PRESENT  
Ph.D. student in LANGUAGE TECHNOLOGIES, LTI, SCS CGPA: **4.08/4.33**  
ADVISOR: [Prof. Emma Strubell](#)

**Carnegie Mellon University**, Pittsburgh AUGUST 2019 - FEBRUARY 2020  
Ph.D. student in LANGUAGE TECHNOLOGIES, LTI, SCS CGPA: **4.08/4.33**  
ADVISORS: [Prof. Jaime Carbonell](#) & [Prof. Barnabás Póczos](#)

**Carnegie Mellon University**, Pittsburgh AUGUST 2017 - AUGUST 2019  
Master of Science in LANGUAGE TECHNOLOGIES, LTI, SCS CGPA: **4.13/4.33**  
ADVISORS: [Prof. Jaime Carbonell](#) & [Prof. Barnabás Póczos](#)

**Indian Institute of Technology Roorkee**, India JULY 2011 - JUNE 2015  
Bachelor of Technology in COMPUTER SCIENCE AND ENGINEERING CGPA: **9.67/10.0**  
PRESIDENT'S GOLD MEDALIST INSTITUTE RANK: **1** (out of 987 students)

## RESEARCH EXPERIENCE

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**Carnegie Mellon University**, Pittsburgh, PA AUGUST 2017 - PRESENT  
GRADUATE RESEARCH ASSISTANT

- My current work focuses on developing algorithms for simultaneous/sequential learning in neural networks from multiple tasks/ domains with a special focus on NLP applications (EMNLP-20). I am also interested in investigating self-supervised learning for addressing distribution shifts and meta-learning with limited labeled data.
- Previous works focused on injecting inductive biases into deep models for inference-time domain adaptation (AAAI-19) and semi-supervised learning with limited labeled data (EMNLP-18).
- Developed machine learning models for part demand forecasting and part price prediction problems (as a part of Boeing/Carnegie Mellon Aerospace Data Analytics Lab academic research initiative).

**Adobe Research**, Bangalore, India JUNE 2015 - JULY 2017  
MEMBER OF RESEARCH STAFF (MANAGER: [Dr. Shriram Revankar](#) / [Dr. P. Anandan](#))

- Worked on designing algorithms for generating data-driven geo-fences to assist Adobe's digital marketing business and preventing inadvertent information disclosures by auto-tagging security policies.
- Transferred several technologies to Adobe Analytics (US Patent 9,838,843) and Adobe Experience Manager (US Patents 10,102,191 and 10,783,262).

## PUBLICATIONS

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- **Sanket Vaibhav Mehta\***, Zirui Wang\*, Barnabás Póczos, Jaime Carbonell. “**Efficient Meta Lifelong-Learning with Limited Memory**”. Proceedings of the 2020 *Conference on Empirical Methods in Natural Language Processing* (EMNLP-20).
- Harsh Jhamtani, **Sanket Vaibhav Mehta**, Jaime Carbonell, Taylor Berg-Kirkpatrick. “**Learning Rhyming Constraints using Structured Adversaries**”. Proceedings of the 2019 *Conference on Empirical Methods in Natural Language Processing* (EMNLP-19).
- Jay-Yoon Lee, **Sanket Vaibhav Mehta**, Michael Wick, Jean-Baptiste Tristan, Jaime Carbonell. “**Gradient-based Inference for Networks with Output Constraints**”. Proceedings of the 33<sup>rd</sup> *AAAI Conference on Artificial Intelligence* (AAAI-19).

- **Sanket Vaibhav Mehta\***, Jay-Yoon Lee\*, Jaime Carbonell. “**Towards Semi-Supervised Learning for Deep Semantic Role Labeling**”. Proceedings of the 2018 *Conference on Empirical Methods in Natural Language Processing (EMNLP-18)*.
- Tanya Goyal, **Sanket Vaibhav Mehta**, Balaji Vasan Srinivasan. “**Preventing Inadvertent Information Disclosures via Automatic Security Policies**”. In *Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD-17)*.
- Kundan Krishna, Deepali Jain, **Sanket Vaibhav Mehta**, Sunav Choudhary. “**An LSTM Based System for Prediction of Human Activities with Durations**”. In *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT-17)*.

## ISSUED PATENTS

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- Generating data-driven geo-fences (US 9,838,843)
- Propagation of changes in master content to variant content (US 10,102,191)
- Digital Document Update (US 10,489,498)
- Tagging documents with security policies (US 10,783,262)

## RELEVANT COURSES

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Introduction to Machine Learning (10-701), Algorithms for NLP (11-711), Neural Networks for NLP (11-747), Structured Prediction for Language (11-763), Deep Reinforcement Learning and Control (10-703), Multimodal Machine Learning (11-777), Deep Learning (10-707), Human Language for AI (11-724), Convex Optimization (10-725)

## ACCOLADES

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- Department Research Fellowship, LTI, SCS (August 2017 - present).
- Recipient of **President’s Gold Medal**, **Dr. A. N. Khosla Medal** and **Smt. Shashi Krishna Medal** for the Session 2014-15 for obtaining the highest CGPA amongst the B.Tech/ B.Arch/ IDD/ Int. M.Sc./ Int. M.Tech passing out students.
- Recipient of **Kathail Family Annual Excellence Award** and **Rakesh Agrawal Annual Excellence Award** presented by IIT Roorkee Heritage Foundation in 4<sup>th</sup> year and 2<sup>nd</sup> year of B.Tech in Computer Science and Engineering for outstanding Academic, Co-Curricular and Extra-Curricular achievements respectively.
- Recipient of **Certificate Of Trust Prize- Mr. Rai Singh Jain & Mrs. Shakuntla Devi Jain** presented by IIT Roorkee for the year 2014 and 2012 for The Student Obtaining Highest CGPA in B.Tech 3<sup>rd</sup> year and 1<sup>st</sup> year.

## RESPONSIBILITIES

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- **Reviewer:** ICLR (2021), AAAI (2021), EMNLP (2019, 2020), ACL (2019, 2020), LTI SRS 2018
- **Teaching Assistant:** (1) [Algorithms for NLP \(11-711\)](#), (2) [Artificial Intelligence \(15-681A/IITP-01\)](#) where responsibilities included conducting recitations, holding office hours, creating and grading assignments and exams.
- **Internship Mentor:** Mentored a group of 3 students at Adobe Research over the summer of 2016.
- **Founding Chair, IIT Roorkee ACM Student Chapter:** Presided over all the meetings of the chapter and of its Executive Council while serving as chair for IIT Roorkee ACM Student Chapter during the session 2014-15.
- **Ambassador for ACM:** Served as a campus ambassador for ACM at IIT Roorkee during the session 2014-15.

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\* denotes equal contribution