

Rohit Saxena

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EDUCATION

University of Edinburgh

Sep. 2019 – Present

PhD, Natural Language Processing

- *Advisor: Prof. Frank Keller*
Topic: Content Selection for Long Document Summarization

Uttar Pradesh Technical University

Aug. 2007 – Jun. 2011

- *Bachelor of Technology Computer Science and Engineering; Percentage: 70.26%*

PUBLICATIONS

- **Rohit Saxena**, Hao Tang, Frank Keller. *End-to-End Long Document Summarization using Gradient Caching*. (under review)
- **Rohit Saxena**, Frank Keller. *Select and Summarize: Scene Saliency for Movie Script Summarization*. Findings of the Association for Computational Linguistics. **NAACL 2024** (link)
- **Rohit Saxena**, Frank Keller. *MovieSum: An Abstractive Summarization Dataset for Movie Screenplays*. Findings of the Association for Computational Linguistics. **ACL 2024** (link)
- **Rohit Saxena**, Pasquale Minervini, Frank Keller. *PosterSum: A Multimodal Benchmark for Summarization of Research Posters*. (work in progress)
- Giwon Hong*, Aryo Pradipta Gema*, **Rohit Saxena***, et al. *The Hallucinations Leaderboard—An Open Effort to Measure Hallucinations in Large Language Models*. under review (link) *equal contribution
- Aryo Pradipta Gema, Joshua Ong Jun Leang, Giwon Hong, Alessio Devoto, Alberto Carlo Maria Mancino, **Rohit Saxena**, et al. *Are We Done with MMLU?*. under review (link)
- **Rohit Saxena**, Savita Bhat, Niranjan Pedanekar. *EmotionX-Area66: Predicting Emotions in Dialogues using Hierarchical Attention Network with Sequence Labeling*. Association for Computational Linguistics Workshop on Natural Language Processing for Social Media. **ACL 2018** (link)
- **Rohit Saxena**, Savita Bhat, Niranjan Pedanekar. *Live on TV, Alive on Twitter: Quantifying Continuous Partial Attention of Viewers During Live Television Telecasts*. 17th IEEE International Conference on Data Mining series Workshop on Data Science for Human Performance in Social Networks. **ICDM 2017** (link)
- **Rohit Saxena**, Niranjan Pedanekar. *I Know What You Coded Last Summer: Mining Candidate Expertise from GitHub Repositories*. 20th ACM Conference on Computer-Supported Cooperative Work and Social Computing. **CSCW 2017** (link)

PROFESSIONAL EXPERIENCE

- **Amazon Web Services - AI, Seattle, USA** Sep 2023 - Dec 2023
 - *Position: Applied Science Intern*
 - Amazon Science Team
- **TCS Research, TRDDC, Pune, India** Mar. 2012 - Aug. 2019
 - *Position: Researcher*
 - Media and Entertainment Research Group

SELECTED INDUSTRY RESEARCH PROJECTS

- **Mitigation of Hallucination in Large Language Model:**
 - Proposed method to generate attribution for the generated text.
 - Used the attribution to correct the hallucinated text.
 - Improved performance on Natural Question Answering and XSum dataset.
- **Multimodal content analysis of television show:**
 - Emotion detection in dialogues using subtitles
 - Speaker identification for movies using audio features and contrastive loss.
 - Actor face tracking in video using FaceNet and OpenCV.
- **Style transfer for Advertisements:**
 - We developed a method for rendering stylized advertisement to minimize distraction due to the advertisement in a video.
 - Implemented the photo-realistic style transfer network as prescribed by Luan et al.
 - Evaluated the method using 5 different advertisements over 10 popular Hollywood movie scenes.
- **Analysis of TV Viewer's Attention and Characters:**
 - Designed a model to quantify user's attention while watching TV using live tweeting behaviour.
 - Classification of dialogue popularity based on text, speaker, and tweet meta-data features
 - Character ranking using audio-visual (energy, harmonicity, aesthetics, memorability and optical flow) and social attributes (number of mentions, dialogue popularity and dialogue longevity).

TEACHING EXPERIENCE

- **Teaching Assistant, University of Edinburgh** Jan. 2023 – Apr. 2023
Tutor for Natural Language Understanding, Generation, and Machine Translation
- **Teaching Assistant, University of Edinburgh** Sep. 2022 – Nov. 2022
Marker for Accelerated Natural Language Processing

PATENTS

- Dynamic data masking for mainframe application: US Patent No: US20160269417A1
- Automating a process associated with a web based software application: US Patent No: US20150381703A1
- Sensitive audio zone rearrangement for customer verification and query processing: US Patent No: US10599864B2
- Method and system for efficient selective backup strategy in an enterprise.: US Patent No: US10198322B2
- System and method for estimating temporal importance of data: US Patent No: US10296523B2
- Systems and methods for estimating skill-sets of users in a distributed environment.: India Patent No: 201621003887

PROGRAMMING SKILLS

- **Programming Skills:** Python (Advance), Java-SE (Advance), Java-EE (Advance), C++, C
- **Deep Learning Framework:** PyTorch (Advance), Keras, Tensorflow, Caffe
- **Web Skills:** JavaScript, HTML, CSS, D3.js, JQuery
- **Operating System:** Ubuntu, Windows
- **Servers:** IBM WebSphere Application Server, JBoss Application Server, Tomcat
- **Databases:** IBM DB2, Oracle, MySQL, PostgreSQL
- **Tools:** Visual Studio, PyCharm, Eclipse, Spyder, IBM Rational Application Developer, L^AT_EX

RELEVANT COURSEWORK

- **PhD, Edinburgh:** Natural Language Understanding, Image and Vision Computing, Machine Learning and Pattern Recognition, Discourse Comprehension

AWARDS AND CERTIFICATIONS

- Awarded scholarship “Airtel Scholar Hunt” by Middlesex University U.K. for undergraduate studies (did not pursue it)
- Awarded ”ILP Kudos” for being in top 1% in TCS Initial Learning Program.
- Ranked 2nd in SocialNLP 2018 Data Challenge.
- Awarded Special Mention for algorithm proposed in the Data Privacy in Image Challenge in TCS (among 30,000 participant).
- Semi-finalist in The Great Mind Challenge (TGMC) in 2009 and 2010 organized by IBM.
- Oracle Certified Associate, Java SE 7 Programmer.
- Verified Coursera Course Certificate: Deep Learning Specialization, Machine Learning by Stanford Online, Classification by University of Washington etc.

EXTRA-CURRICULAR ACTIVITIES

- Photography, Running, Travelling.
- Presented work at CIKM 2016, CSCW 2017, ICDM 2017, ACL 2018, NAACL 2024, ACL 2024.