

Sameer Jain

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EDUCATION

Carnegie Mellon University, School of Computer Science

Pittsburgh, PA

Master of Science in Intelligent Information Systems (Language Technologies Institute)

December 2022

- Coursework: Introduction to ML, ML with Large Datasets, Human Language for AI, Advanced NLP, Multilingual NLP, Computational Ethics for NLP, Probability and Mathematical Statistics

Birla Institute of Technology and Science

Pilani, India

Bachelor of Engineering (Hons.) Computer Science (Distinction)

June 2019

- Thesis: *Copy Mechanisms for Upstream Text Processing* [\[pdf\]](#)

EXPERIENCE

Pinterest

Palo Alto, CA

Machine Learning Engineer II | Homefeed Ranking

March 2024 - Present

- Develop machine learning models for personalized ranking of pins on the Pinterest home feed
- Responsible for modeling for driving shopping recommendations to users

Supernormal

Mountain View, CA

Machine Learning Engineer | AI Team

April 2023 - January 2024

- Engineered prompts and fine-tuned large language models (**LLMs**) to generate notes, summaries, and action items from meetings
- Led **note quality evaluation** – defined quality aspects of interest (e.g. relevance and coverage) and implemented metrics to measure these aspects

Carnegie Mellon University

Pittsburgh, PA

Research Assistant (*Mentors: Fei Fang and Lei Li*)

March - June 2023

- Led a collaboration between CMU and the World Wide Fund for Nature (WWF) to leverage **LLMs** to identify environmental conservation news
- Designed and deployed a **multilingual** system to identify conservation news in low-resource languages such as Nepali
- Achieved state-of-the-art performance using **< 10%** of the data required by existing methods, significantly reducing manual annotation efforts. Published at AAAI '24.

Meta

Menlo Park, CA

Software Engineering Intern | Ad Enhancement and Delivery

June - August 2022

- Collaborated with the Creative Engineering team on augmented reality (AR) enhanced ad transformations
- Built **pipelines** to identify best **AR effects for ad enhancement** and built guardrails against low-quality transformations

Samsung Research Institute

Bangalore, India

Software Engineer | Voice Intelligence R&D

July 2019 - December 2020

- Developed **on-device** language capabilities to reduce server costs and improve offline performance of Bixby
- Designed memory-efficient data structures and caching mechanisms to improve latency of the on-device NLU engine

University of Zurich

Zurich, Switzerland

Research Intern (*Mentor: Tanja Samardžić*)

January - May 2019

- Improved **low-resource** performance of LSTM encoder-decoders on morphological tasks by introducing a **copy mechanism**
- Applied the architecture for normalization of the Swiss-German language and for morphological segmentation of the English, German, and Indonesian languages

Aix-Marseille University and CNRS

Aix-en-Provence, France

Research Intern (*Mentor: Philippe Blache*)

May - July 2018

- Designed a model to **automatically estimate presence** during humans interactions with embodied conversational agents
- Built **multimodal** classifiers to estimate this from humans' verbal and non-verbal cues during virtual reality interactions, significantly **reducing human effort** as presence estimation is typically performed using subjective questionnaires

PUBLICATIONS

1. “Where It Really Matters: Few-Shot Environmental Conservation Media Monitoring for Low-Resource Languages” [\[pdf\]](#)
Sameer Jain, Sedrick Keh, Shova Chettri, Karun Dewan, Pablo Izquierdo, Johanna Prussman, Pooja Shreshtha, César Suárez, Ryan Shi, Lei Li, and Fei Fang
AAAI Conference on Artificial Intelligence - AI for Social Impact Track **AAAI '24**
2. “Multi-Dimensional Evaluation of Text Summarization with In-Context Learning” [\[pdf\]](#)
Sameer Jain, Vaishakh Keshava, Swarnashree Mysore Sathyendra, Patrick Fernandes, Pengfei Liu, Graham Neubig, and Chunting Zhou
Findings of the Annual Meeting of the Association for Computational Linguistics **ACL Findings '23**
3. “Four Years of FAccT: A Reflexive, Mixed-Methods Analysis of Research Contributions, Shortcomings, and Future Prospects” [\[pdf\]](#)
Benjamin Laufer, **Sameer Jain***, A. Feder Cooper*, Jon Kleinberg, and Hoda Heidari
Proceedings of the ACM Conference on Fairness, Accountability, and Transparency **FAccT '22**
4. “Toward an Automatic Prediction of the Sense of Presence in Virtual Reality Environment” [\[pdf\]](#)
Magalie Ochs, **Sameer Jain**, and Philippe Blache
International Conference on Human-Agent Interaction **HAI '18**

PROJECTS

Evaluation of Machine-generated Text using In-context Learning

CMU

Mentors: Chunting Zhou and Graham Neubig

August - December 2022

- Designed a framework for using **large language models (LLMs)** to **evaluate the quality** of artificially generated summaries
- Achieved **state-of-the-art** performance on quality evaluation while using **< 0.1%** of the training data used by existing methods

Mixed-method Reflexive Analysis of FAccT

CMU

Mentors: Hoda Heidari and Jon Kleinberg

January - December 2021

- Identified areas of focus in the **fair machine learning** domain through community detection in fair-ML citation networks
- Uncovered the moral underpinnings of Fair-ML literature against the framework given by the Moral Foundations Theory

SKILLS

- **Languages:** Python, C/C++, Java, SQL
- **Frameworks:** PyTorch, Spark

SCHOLARSHIPS AND AWARDS

- **National Talent Search Examination (NTSE) Scholarship**, awarded to **1000 students among 1 million** candidates by the National Council of Educational Research and Training (NCERT), India
- **Kishore Vaigyanik Protsahan Yojana (KVPY) Fellowship**, offered to **800 candidates out of 50,000 applicants** by the Department of Science and Technology, Government of India, in collaboration with Indian Institute of Science, Bangalore
- All India Rank **381 among 1.3 million candidates** in **IIT-JEE Mains 2015**
- All India Rank **1606 among 117,000 candidates** in **IIT-JEE Advanced 2015**
- **BITS Pilani Merit Scholarship**, awarded to the **top 3%** of the undergraduate class
- Graduated from BITS Pilani with the **Distinction** division, the highest academic honors awarded to bachelor's degree students