Samraj Moorjani

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Education

2022-	**Master's of Science**, *Computer Science*. University of Illinois at Urbana-Champaign Advisor: Hari Sundaram Graduation May 2023
2019-2022	**Bachelor's of Science**, *Computer Science*. University of Illinois at Urbana-Champaign GPA 3.98/4.00
2015-2019	**High School Diploma**. William G. Enloe High School GPA 4.7/4.0 (Weighted) Dual Degree with North Carolina State University

Awards

2022	**Siebel Scholar**, *Thomas M. Siebel Foundation*. Among 90 graduate students from select 16 schools worldwide ($35k prize)
2020	**URAI Scholar**, *IBM C3SR*. Undergraduate Research in AI Scholar awarded by IBM Center for Cognitive Computing Systems Research
2020	**First Place Prize**, *Caterpillar Anomaly Detection in IoT Challenge*. Undergraduate Research in AI Scholar awarded by IBM Center for Cognitive Computing Systems Research
2019-2023	**Dean's List**, *University of Illinois at Urbana-Champaign*.
2017-2019	**AIME Qualifier**, *Mathematical Association of American*. Qualified for American Invitational Mathematics Examination

Experience

May–August 2022	**Meta**, *Software Engineering Intern*, Menlo Park. Worked on Ads Responsibility and Privacy to improve multimodal advertisement classification using novel hierarchical multi-label classification methods
May 2021–	**Crowd Dynamics Lab**, *Graduate Researcher*, Champaign. Employing natural language generation (NLG) to present scientific information to a layperson audience. Various threads of work including persuasive text generation, long text generation, controllable NLG, etc.
May–August 2021	**Facebook**, *Software Engineering Intern*, Menlo Park. Worked on the AI Commerce Multimodal team to improve the cross-lingual abilities of multilingual multimodal categorization models through various novel strategies.
August 2020–	**IBM C3SR**, *Undergraduate Researcher*, Champaign. Integrated sparse matrix multiplication operations (e.g. cuBLAS, cuSPARSE, TiledSpMM) into a custom kernel pipeline for PyTorch. Pruned large language models like NVIDIA's Megatron-LM BERT with various structured/unstructured pruning techniques and retrained with weight rewinding.
June–August 2020	**Capital One**, *Software Engineering Intern*, Champaign. Deployed a distributable named entity recognition (NER) processor with a BERT-BiLSTM-CRF model. Greatly outperformed production-grade NER tools like spaCy and Flair.

June– November 2018	**FirstEigen**, *Machine Learning Intern*, Chicago. Explored anomaly detection methods on unstructured, noisy data (e.g. unsupervised kNN and Local Outlier Probability).

References

Hari Sundaram, *Professor*, UIUC, hs1@illinois.edu.

Ewa Maslowska, *Assistant Professor*, UIUC, ehm@illinois.edu.

Minxing Liu, *Intern Manager*, Meta, mxliu@fb.com.

Wen-mei Hwu, *Senior Distinguished Research Scientist*, NVIDIA, w-hwu@illinois.edu.

Jinjun Xiong, *Professor*, University at Buffalo, jinjun@buffalo.edu.

Yu (Hugo) Chen, *Intern Manager*, Meta, hugochen@fb.com.

Publications

Findings of EMNLP 2022	**Audience-Centric Natural Language Generation via Style Infusion**. **Samraj Moorjani**, Adit Krishnan, Hari Sundaram, Ewa Maslowska, Aravind Sankar

Teaching

Fall 2022	**Teaching Assistant**, *CS441: Applied Machine Learning*.
Spring 2022	**Course Assistant**, *CS498CA: Computational Advertising*.
Fall 2021	**Course Assistant**, *CS374: Algorithms and Models of Computation*.
Spring 2021	**Course Assistant**, *CS374: Algorithms and Models of Computation*.
Fall 2020	**Course Assistant**, *CS126: Software Design Studio*.
Spring 2020	**Course Assistant**, *CS126: Software Design Studio*.

Academic/Professional Service

2022	**Reviewer**, *EMNLP*.
2022	**Subreviewer**, *CIKM, SIGKDD, WSDM*.
2021	**HackIllinois**, *Outreach Member*.
2020-2021	**Reflections|Projections**, *Website Developer*.

Relevant Coursework

2022, Advanced Natural Language Processing, Knowledge-Driven Natural Language Generation, Statistical Reinforcement Learning, Antisocial Computing.

2021, Natural Language Processing, Machine Learning, Deep Learning, Computational Advertising.

2020, Database Systems, Probability and Statistics, Numerical Methods, Algorithms and Models of Computation.