

Mukund Srinath

State College, PA

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Education

Pennsylvania State University

PhD, Informatics

Co-supervised: C. Lee Giles and Shomir Wilson

Expected: May, 2024

GPA: 3.85

Pennsylvania State University

MS, Information Sciences and Technology

August, 2017 - May, 2019

GPA: 3.88

R. V. College of Engineering, India

BE, Electrical and Electronics Engineering

August, 2011 - May, 2015

GPA: 8.94

Research Experience

Human Language Technologies Lab

Research Assistant

State College, PA

August, 2019 - Present

- Domain adapted pretrained BERT-based large language models (LLM) for the privacy policies, terms and conditions, and other privacy regulation documents. [HuggingFace](#)
- Designed and developed, the world's 1st [privacy policy search engine](#) incorporating retrieval augmented generation (RAG) pipeline.
- Achieved SoTA results on semantic similarity, named entity recognition (NER), and question-answering tasks.
- Developed a specialty crawler and collected the largest corpus of privacy policies containing ~4 million policies.

Intelligent Information Systems Lab

Machine Learning Researcher

State College, PA

August, 2019 - Present

- Created prompt engineering techniques to identify biases by jail-breaking LLMs GPT-4, BARD, and Llama.
- Designed ethics sheet to aid the development of trustworthy sentiment analysis models after surveying 189 papers.
- Designed model agnostic bias detection technique to measure implicit and explicit biases in word vectors and large language models.

Work Experience

Trustpage

Machine Learning Intern

Detroit, MI

May, 2022 - August, 2022

- Designed evaluation metrics to track the performance of a company-wide suite of machine learning models.
- Implemented and deployed a question similarity model on Google Cloud (GCP), improving performance by 12%.
- Applied feature engineering and synthetic data generation techniques on low-resource tasks.

McFadyen Digital

Software Engineer

Bangalore, India

July, 2015 - July, 2017

- Implemented a full-life-cycle webapp of a human resource information system supporting ~500 users.
- Developed backend and frontend online retail features for search, payment, and checkout functionality.

Awards and Honors

- [Liberatory Tech Fellow](#) 2024, with Logic(s) Magazine and Columbia University
- **Outstanding Paper** @EMNLP'23
- **Best Student Paper** @DocEng'23
- **Best Short Paper** @TrustNLP Workshop (ACL'23)
- **Best Student Paper** @PETS'23
- **Semi-finalist** @Nittany AI Challenge 2023, for [ClassCollab](#): Peer-learning based adaptive learning system.
- **Semi-finalist** @Nittany AI Challenge 2023, for [ChronoNews.ai](#): AI generated timeline of news articles.
- **2nd place** @HackPSU 2019, for [Beyond Tweet](#), an application that combines geospatial census data with tweet sentiment to help make market predictions.

- **2nd place and \$20,000 in funding** @Nittany AI Challenge 2018, for [ProFound: A professor search engine](#).
- **3rd place** @HackPSU 2018, for [WeatherOrNot](#), a travel application to recommend vacation destinations based on travel prices, and weather preferences.
- **1st place and honorable mention by IBM** @HackPSU 2017, for [FindViser](#) an application that suggests research advisers to graduate students.

Additional Projects

Medical Domain LLM [Python, PyTorch, scikit-learn]

Objective: Domain adapt a language model for the medical domain concentrating on preserving patient privacy.

Techniques: *LLM Pretraining, privacy preserving machine learning*

News Timeline Summarization [Python, PyTorch, scikit-learn, Elasticsearch]

Objective: Given a news article, create an explainable timeline of news story unfolding over time.

Techniques: *Recommendation system, explainable AI, clustering, document similarity, vector search*

Generative AI Language Understanding Benchmark [Python, TensorFlow]

Objective: To evaluate foundation generative models on privacy policy language understanding tasks.

Techniques: *GenAI fine-tuning, zero-shot and few-shot prompt engineering*

Fair Model Distillation [Python, PyTorch]

Objective: Mitigate biases by creating fair distilled models through counterfactual generation.

Techniques: *knowledge distillation, statistical analysis, visualization*

Skills

Machine Learning Skills: sklearn, Tensorflow, PyTorch. Experience with multi-GPU processing.

Development Skills: Python, R, Java, C++, Elasticsearch, Django, SQL, NoSQL, Git and multiple OS.

Selected Publications

Mukund Srinath, Pranav Venkit, Maria Badillo, Florian Schaub, C. Lee Giles, Shomir Wilson
Semantic Similarity Matching for Data Practice Identification in Privacy Policies (Under Review)
European Chapter of the Association for Computational Linguistics (**ACL 2024**)

Pranav Venkit*, **Mukund Srinath***, Sanjana Gautam, Vipul Gupta, Rebecca Passonneau, Shomir Wilson
[The Sentiment Problem: A Critical Survey towards Deconstructing Sentiment Analysis](#)
[**Outstanding Paper**] Empirical Methods in Natural Language Processing (**EMNLP 2023**)

Mukund Srinath, Soundarya Sundareswara, C. Lee Giles, Shomir Wilson
[**Best Paper**] [Privacy Lost and Found: An Investigation at Scale of Web Privacy Policy Availability](#)
The 23rd ACM Symposium on Document Engineering (**DocEng, 2023**)

Pranav Venkit, **Mukund Srinath**, Shomir Wilson
[Automated Ableism: An Exploration of Explicit Disability Biases in Sentiment and Toxicity Analysis Models](#)
[**Best Paper**] 3rd Workshop on Trustworthy Natural Language Processing (**ACL, 2023**)

Abraham Mhaidli, Selin Fidan, An Doan, **Mukund Srinath**, Lee Matheson, Shomir Wilson, Florian Schaub
[Researchers' Experiences in Analyzing Privacy Policies: Challenges and Opportunities](#)
[**Best Paper**] Proceedings on Privacy Enhancing Technologies (**PETS, 2023**)

Pranav Venkit, **Mukund Srinath**, Shomir Wilson
[A Study of Implicit Language Model Bias Against People With Disabilities](#)
29th International Conference on Computational Linguistics (**COLING, 2022**)

Mukund Srinath, Shomir Wilson, C. Lee Giles.
[Privacy at Scale: Introducing the PrivaSeer Corpus of Web Privacy Policies](#).
59th Annual Meeting of the Association for Computational Linguistics (**ACL, 2021**)

Mukund Srinath, Soundarya Sundareswara, Shomir Wilson, C. Lee Giles.
[PrivaSeer: A Privacy Policy Search Engine](#).
International Conference on Web Engineering (**ICWE, 2021**)