Mukund Srinath

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EDUCATION

Pennsylvania State University Expected: December, 2023 PhD, Informatics GPA: 3.85 Co-supervised by C. Lee Giles and Shomir Wilson Pennsylvania State University August, 2017 - May, 2019 GPA: 3.88 MS, Information Sciences and Technology R. V. College of Engineering, India August, 2011 - May, 2015 GPA: 8.94 BE, Electrical and Electronics Engineering

WORK EXPERIENCE

Trustpage Machine Learning Intern Detroit, MI

May, 2022 - August, 2022

- · Designed evaluation metrics to track performance of company-wide suite of machine learning models.
- · Implemented and deployed a question similarity model on GCP, improving on existing implementation by 12%.
- · Applied feature engineering and synthetic data generation techniques on a task with few training samples.
- · Created visualizations of results and communicated results to non-technical teams.

ClearAvenue Software Engineering Intern Columbia, MD

May, 2018 - August, 2018

- · Designed a proof-of-concept to improve medical device security in software defined networks.
- Explored unsupervised anomaly detection methods to detect potential network security threats.

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 eCommerce features for search, payment and checkout functionality.

RESEARCH EXPERIENCE

Human Language Technologies Lab

Pennsylvania State University August, 2019 - Present

Research Assistant

- · Applying natural language processing and information retrieval techniques to analyze privacy policies at scale.
- · Created a novel crawling technique to collect the largest corpus of privacy policies containing over 2M policies.
- · Designed, created and maintain, end-to-end, PrivaSeer, the first privacy policy search engine.
- · Achieved state of the art results on classification, named entity recognition (NER) and question answering tasks on privacy policies by creating PrivBERT, a privacy language model.

PIKE Group Researcher Pennsylvania State University August, 2017 - July, 2019

- · Designed a novel technique to select best answers from a list of non-fact-based questions by generating questions.
- · Implemented a convolutional neural network (CNN) based algorithm using TensorFlow to rank answers achieving a precision@1 score of 0.452 and mean reciprocal rank of 0.59, thereby setting a baseline for a novel dataset.

AWARDS

- 2nd place in 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 in Nittany AI Challenge, 2018 for ProFound: A professor search engine.
- · 3rd place in HackPSU, 2018 for WeatherOrNot an application to recommend vacation destinations.
- · 1st place and honorable mention by IBM at HackPSU, 2017 for Find Viser an application that suggests research advisers to graduate students.

ADDITIONAL PROJECTS

Personal Information Type Extraction

Designed a novel scalable technique to extract the types of personal information collected from users from over 1.4 million privacy policies. Trained a BERT based model to identify valid personal information types given inputs of noun phrases and their POS tags.

Fake News Prediction

Designed a two-stage approach to fake news detection based on text coherence and sentiment features. Obtained state of the art results on AICS18 workshop challenge with an precision of 86%.

ProFound: Professor Search Engine

Designed an end-to-end system to track professors based on research topics and interests. Crawled, indexed and ranked ~ 500 academic websites.

SKILLS

Programming Languages Python, Java, Javascript, C++

Frameworks and Packages TensorFlow, PyTorch, scikit-learn, ElasticSearch, Scrapy, Django, SQL

PUBLICATIONS

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)

Soundarya Sundareswara, Shomir Wilson, Mukund Srinath, C. Lee Giles.

Privacy Not Found: A Study of the Availability of Privacy Policies on the Web.

Symposium on Usable Privacy and Security (SOUPS, 2020).

Mukund Srinath.

Convolutional Neural Network and Question Generation Based Approaches to Select Best Answers for Non-Factoid Questions.

(Master's thesis, Pennsylvania State University, 2019)