Sharad Shriram

✉ sharadshriram01@gmail.com | 🏠 sharadshriram.github.io | 🐙 sharadshriram | 💼 sharadshriram | 🎓 Google Scholar

Summary

- Software Engineer with 6 years of experience applying cutting-edge ML models (including LLMs) to solve real-world problems.
- Working at the intersection of privacy and machine learning
- Passionate about integrating software engineering best practices for efficiency.
- Research interests include applied Machine Learning/ Natural Language Processing (NLP), Software Architecture and Infrastructure for Generative AI applications.

Work Experience

Google
Bangalore, India
AI Privacy Engineer
Jun. 2024 - Present
- Working at the intersection of AI and privacy.

Google DeepMind
Bangalore, India
Pre Doctoral Researcher
May. 2024 - Jun. 2024
- **Generating intermediate representations for text** - Developing factual intermediate representations for text-style transfer using large language models (LLMs). Employing prompting (including chain-of-thought), bulk inference pipelines, fine-tuning (supervised and LoRA), and qualitative analysis

Google Research India
Bangalore, India
Pre Doctoral Researcher
Jul. 2022 - May. 2024
- **Generating intermediate representations for text** - Developing factual intermediate representations for text-style transfer using large language models (LLMs). Employing prompting (including chain-of-thought), bulk inference pipelines, fine-tuning (supervised and LoRA), and qualitative analysis
- **Applied ML application on data visualizations** - Developed a conversational interface over data visualizations using a vision-language model and large language model. Prioritized accessibility-focused design for diverse user needs

Google through Optimum Infosystems
Bangalore, India
Data Commons Associate
Aug. 2021 - Jun. 2022
- Expanded data coverage for Google's Data Commons open knowledge graph project.
- Designed new schema for diverse public statistical datasets within the Data Commons project.
- Developed data processing workflows for ingesting statistical datasets (including census data) into the Data Commons platform.

Centre for Networked Intelligence, Indian Institute of Science
Bangalore, India
Technical Associate
Dec. 2019 - Jul. 2021
- Led architecture and development of COVID-19 response projects: serosurvey optimization & agent-based model as a service.
- Contributed to COVID-19 response projects that were published in AAMAS 2021; Journ. of IISc., 2020; Sankhya B, 2020.
- Researched software architectures for online networking courses; presented at ACM SIGCOMM Online Networking Education Discussion Workshop, 2020.

IBM Netherlands
Amsterdam, the Netherlands
Extreme Blue Intern
May. 2018 - Aug. 2018
- Led development of an AI/data-driven prototype for supply chain analysis at a top Food & Beverage company.

Education

Delft University of Technology (TU Delft)
Delft, the Netherlands
M.S. (by Research) in Computer Science
Sep. 2017 - Aug. 2019
- Courses: Software Architecture, Pattern Recognition, Information Retrieval, Web Data Management, Web Science and Engineering.
- Thesis: "A Human-Machine Approach to Preserve Privacy in Image Analysis Crowdsourcing Tasks".
- Advisor: Prof. Alessandro Bozzon
- Teaching and Lab Assistant for graduate and undergraduate CS course.

Amrita Vishwa Vidyapeetham (Amrita University)
Coimbatore, India
B.Tech. in Computer Science and Engineering
Aug. 2012 - May. 2016
- Undergraduate Student Researcher in Mobile and Wireless Networks lab.

Highlights

- Recognized for cross-functional collaboration with multiple Google internal awards (peer and spot bonuses).
- Runners-up for *Project with the best innovation impact*, IBM Extreme Blue European Expo, 2018.
- *IBM Benelux Excellence Award* for work done during the Extreme Blue internship, 2018.

Skills

Programming Languages	Python, C++, JavaScript, Java.
Data and ETL pipelines	Pandas, Apache Beam, Tensorflow datasets, SQL, R, scipy
ML/NLP Frameworks	Tensorflow, HuggingFace, PyTorch, numpy
Web Frameworks	Django, Flask, Angular, nginx, PHP

Selected Publications

- A Talekar, **Shriram, S**, N Vaidhiyan, G Aggarwal, J Chen, S Venkatramanan, L Wang, A Adiga, A Sadilek, A Tendulkar, M Marathe, R Sundaresan, and M Tambe. Cohorting to Isolate Asymptomatic Spreaders: An Agent-Based Simulation Study on the Mumbai Suburban Railway. *Proceedings of the 20th International Conference on Autonomous Agents and MultiAgent Systems*, pages 1680–1682, 2021.
- S Agrawal, S Bhandari, A Bhattacharjee, A Deo, N M Dixit, P Harsha, S Juneja, P Kesarwani, A K Swamy, P Patil, et al. City-scale agent-based simulators for the study of non-pharmaceutical interventions in the context of the covid-19 epidemic. *Journal of the Indian Institute of Science*, pages 1–39, 2020.
- **Sharad, S***, P B Sivakumar, and V Anantha Narayanan. The smart bus for a smart city—A real-time implementation. In *2016 IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS)*, pages 1–6. IEEE, 2016.
- P Parag, P Patil, **S Shriram**, R Sundaresan, H Tyagi, and N K Vaidhiyan. Antidote for CoVID-19 pandemic induced surge in online learning. In *2016 IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS)*, 2020.
- S Athreya, G R Babu, A Iyer, M M B S, N Rathod, **Shriram, S**, R Sundaresan, N Vaidhiyan, and S Yasodharan. COVID-19: Optimal Design of Serosurveys for Disease Burden Estimation. *Sankhya B*, pages 1–23, 2020.
- **Sharad, S***, P B Sivakumar, and V Ananthanarayanan. An automated system to mitigate loss of life at unmanned level crossings. *Procedia computer science*, 92:404–409, 2016

References

- Prof. Rajesh Sundaresan (Professor, ECE, Indian Institute of Science (IISc), Bangalore), rajeshs@iisc.ac.in.
- Dr. Aravindan Raghuveer (Principal Software Engineer, Google Research India), araghuveer@google.com.
- Mr. Ajai Tirumali (Senior Software Engineer, Google), ajaits@google.com.