Ishika Agarwal

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Education

MS, University of Illinois, Urbana-Champaign   Aug 2022 - May 2024

Major: Computer Science   GPA: 3.88/4.00

- Relevant courses: Applied Machine Learning, Deep learning, Adv. Algorithms, Adv. Information Retrieval, Deep Generative and Dynamical Models, Computer Vision, ML+Data Systems, Advanced NLP, Embodied NLP

BS, Purdue University   July 2019 - May 2022

Major: Computer Science (concentration in ML)   GPA: 3.88/4.00

- Dean's List
- Relevant courses: Data Structures (Java), Computer Architecture (C), Systems Programming (Linux), Data Mining and ML (Python), Algorithm Analysis, Web Information Search and Management (Python)
- Teaching Assistant for Java Programming and C Programming

Research Projects

1. [WIP] **I. Agarwal**, Q. Zhou, H.Tong: Active Graph Anomaly Detection using MABs
2. [Submitted to ICLR '24] **I. Agarwal**, Q. Zhou, H. Tong: Active GAD using Mixup
3. [Submitted to ICLR '24] Y. Ban, **I. Agarwal**, H. Tong: Neural Active Learning: Online Learning Meets MABs
4. [Submitted to SDM '24] Q. Zhou, K. Ding, Z. Liu, **I. Agarwal**, H.Tong: Closed-Loop NAD: Recent Advanced and Future Trends
5. [SafeAI @ AAAI '21] Z. Xiong, I. Agarwal, S. Jagannathan: HiSaRL: A Hierarchical Framework for Safe RL

Technical Reports

1. [2023] **I. Agarwal**, P. Kargupta, B. Jin, A. Joshi: Generative Transformers for Diverse Text Generation
2. [AI-ML Systems '23] **I. Agarwal**, S. Sehgal, V. Goyal, P. Sonawane: QuickAns - A Virtual Teaching Assistant

Experience

Research Assistant - UIUC   **August 2022 - Present**

RA in Professor Hanghang Tong's IDEA Lab@UIUC. Working on three projects: (1) active graph anomaly detection (GAD), (2), efficient multi-armed bandits (MABs) for multi-class classification, and (3) an intersection between active GAD and efficient MABs.

ML Engineering Intern - Apple   **May 2023 - Aug 2023**

Implemented a distributed training process for TensorFlow Ranker model using in the Apple Maps Search platform. Improved data generation and processing efficiency by 64%. Built feature engineering jobs in Spark.

Software Engineer - Cisco WebEx   **Feb 2022 - Aug 2022**

Handled customer cases by debugging meeting issues and deploying fixes. Improved meeting features and mentored incoming summer interns. Trained coworkers in different teams on how to develop an internal debugging tool.

Research Assistant - Purdue University   **May 2021 - Feb 2022**

RA in Professor Suresh Jagannathan's Lab. Worked on developing efficient and safe reinforcement learning algorithms for hierarchical agents. Submitted a workshop paper to SafeAI @ AAAI 2021.

Software Engineer Intern - Cisco WebEx   **June 2021 - Aug 2021**

Improved the internal logging and debugging tool for WebEx meetings which displays meeting records. Implemented a filtering feature on top of existing code and revised flow design to improve memory bottlenecks for large meeting records.

Software Engineer, Summer Intern - Promega Corporation   **June 2020 - Aug 2020**

Designed and developed a scheduling system for the COVID-19 testing machine. Built a generic scheduling library for cloud backend or embedded systems. Wrote libraries in C# .NET, with 100% unit-test coverage, and integrated it in the UI.

Skills

- Language: Python, Java, C, C#, R, JavaScript, Scala
- ML Frameworks: TensorFlow, Pytorch, Keras, Open AI Gym, Mujoco, Jupyter
- Tools & Frameworks: Git, GNU Debugger, Java Profilers, Tomcat, Maven, Docker, Postman
- Big Data Technologies: Spark, Hadoop, Airflow