Jayanth Yetukuri

San Francisco Bay Area

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Summary

A **decade** of formal education and research background along with **5+ years** of industry research experience in *Artificial Intelligence* and *Machine Learning* (AIML). Lead and developed multiple state of the art real-world projects.

Research Overview

My research interests are in societal aspects of *Artificial Intelligence & Machine Learning*, including but not limited to **robustness**, **recoursability**, **fairness** and is centered explicitly around improving **trustworthiness** of the models.

Professional Experience

eBay Research **San Jose, USA**

Applied Research Intern | Search Science and Query Understanding *June - August, 2022 & 2021*

2022. Multifaceted reformulation for Null and Low user search queries. Built a transformer based model to provide *multiple* and *diverse* reformulations by solving a diversity inducing optimization problem

2021. Box Lattice embedding for representing user search query and categories using a novel loss function for dominant category prediction leveraging query-category hypercube intersection.

Bosch Research and Technology Center **Bangalore, India**

Applied Research Intern | Corporate Research/ Research Technology Center-India *July 2019 - September 2019*

- Worked on deep learning (supervised) based methods for time series classification. Developed novel feature extraction based on kernel techniques to replace state of the art distance metric and worked on the UCR datasets

Oracle Research and Development **Bangalore, India**

Data Engineer | Retail Artificial Intelligence and Analytics *June 2014 - September 2018*

- Developed a framework for data generation and end-to-end automation testing of *Retail Insights*, with the responsibility of leading a team of five. Also, built a model for **demand forecasting** of essentials in a crisis zone

Near.com Research **Bangalore, India**

Collaborative individual project *September 2016 - January 2018*

- Built a model to estimate time-sensitive ambient population of any ad-hoc region based on human mobility data. Worked on classical census data and contemporary mobile data to build a reliable model

Publications & Preprints

- Conformal Recourse framework (first draft in progress) *2024*
- Providing Recourse over Plausible Groups (under review) *2023*
- Multifaceted reformulations for Null & Low Queries and its Parallelism with Counterfactuals (under review) *2023*
- Individual and Group-level considerations of Actionable Recourse **[AIES]** *2023*
- Towards User Guided Actionable Recourse **[AIES]** *2023*
- Adaptive Adversarial Training Does Not Increase Recourse Costs **[AIES]** *2023*
- Robust Stochastic Bandit algorithms to defend against Oracle attack using Sample Dropout **[BigData]** *2022*
- Sequential Image Synthesis for Human Activity Video Generation **[ICIAR]** *2019*

Honors & Awards

- Awarded **Travel grant** by Sixth AAAI/ACM Conference on AI, Ethics, and Society *2023*
- Received **Regents Fellowship** from University of California, Santa Cruz *2019*
- Awarded **Employee of the year** at Oracle Research and Development, Bangalore, India *2018*
- Won the **Design Jam** in Oracle where we built a prototype for faster delivery of goods in a crisis zone *2016*
- Received **Post Graduate Scholarship** in India for pursuing Masters in computer science *2012*
- Secured **99 percentile** in **GATE** (Graduate Aptitude Test in Engineering) at national level in India *2012*
- Received **Prime Ministers scholarship** in India for pursuing Bachelors in computer science *2008*

Peer Review

- **Conferences:** NeurIPS 2023

Skills & Interests

- **Languages/Technologies:** Experience with Python, C and Latex. Proficient in *Pytorch*, *Keras* and *Tensorflow*. Worked with Apache Pyspark, Hadoop-MapReduce and Redis.
- **Interests:** Trustworthy AIML, Improving the Fairness and Ethical dynamics of automated systems.

Education

University of California, Santa Cruz **Santa Cruz, USA**

Doctor of Philosophy in Computer Science | ***GPA : 3.9 / 4.0*** *September 2018 - May 2024*

University of Hyderabad **Hyderabad, India**

Master of Technology in Computer Science | ***CGPA : 8.7 / 10*** *June 2012 - May 2014*

Jawaharlal Nehru Technological University **Tirupati, India**

Bachelor of Technology in Computer Science | ***74.7% (Distinction)*** *October 2008 - May 2012*