

Goutham Ramakrishnan

San Jose, CA

@ goutham7r@gmail.com

+1-608-7338899

goutham7r.github.io

in goutham-ramakrishnan

Experience

AWS Neuron, Amazon Web Services

Cupertino, CA

Machine Learning Engineer - II

Sep'23 - Present

- Enabling distributed training and inference for LLMs on the Trainium and Inferentia ML accelerators, by building framework level support in PyTorch and JAX.

Health at Scale Corporation

San Jose, CA

Senior Machine Learning Software Engineer

Jun'20 - Aug'23

- Created a new product which provides clinical insights for improving health, delivering actionable recourse for high-risk patients as predicted by ML models.
- Developed a highly modular and efficient framework for analyzing large scale healthcare data - used across multiple teams, projects and deployments.
- Core member of the team tasked with multiple new app launches, and responsible for the API and database design, backend development in Django and final deployment.
- Prototyped novel ML models for detecting underdiagnosis of chronic diseases.

Microsoft Research Cambridge

United Kingdom

Researcher Intern

Jun - Sep 2019

- Developed a python package for the automatic discovery, tracking and versioning of sensitive healthcare files, to aid data compliance across the project cycle (Link).

American Express

Gurugram, India

Data Analyst Intern

May - Jul 2017

Publications (600+ citations)

BAE: BERT-based Adversarial Examples for Text Classification

Siddhant Garg*, Goutham Ramakrishnan*

Conference on Empirical Methods in NLP (EMNLP), 2020

Link

Synthesizing Action Sequences for Modifying Model Decisions

Goutham Ramakrishnan*, Yun Chan Lee*, Aws Albarghouthi

Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI), 2020

Link

Semantic Robustness of Models of Source Code

J Henkel*, G Ramakrishnan*, Z Wang, A Albarghouthi, S Jha, T Reps

Conference on Software Analysis, Evolution and Reengineering (SANER), 2022

Link

Backdoors in Neural Models of Source Code

Goutham Ramakrishnan, Aws Albarghouthi

International Conference on Pattern Recognition (ICPR), 2022

Link

Towards Robustness to Label Noise in Text Classification

Siddhant Garg*, Goutham Ramakrishnan*, Varun Thumbe*

Conference on Information and Knowledge Management (CIKM), 2021

Link

Fast GPU-Enabled Color Normalization for Digital Pathology

Deepak Anand*, Goutham Ramakrishnan*, Amit Sethi

Conference on Systems, Signals and Image Processing (IWSSIP), 2019

Link

Interpretable Inference Graphs for Face Recognition

Siddhant Garg*, Goutham Ramakrishnan*, Varun Thumbe

Conference on Image and Vision Computing New Zealand (IVCNZ), 2019

Link

Projects

Towards Compliant Data Management Systems for Healthcare ML

Goutham Ramakrishnan, Aditya Nori, Hannah Murfet, Pashmina Cameron

Preprint

Advances in Quantum Deep Learning: An Overview

Siddhant Garg*, Goutham Ramakrishnan*

Preprint

*Equal Contribution by Authors

Technical Skills

Python PyTorch TensorFlow

JAX PySpark Git LaTeX

Django Bash SQL C++

Education

M.S in Computer Sciences

University of Wisconsin-Madison

Aug 2018 - May 2020 GPA: 4.0/4.0

B.Tech in Electrical Engineering

(Minor in Computer Science & Engineering)

Indian Institute of Technology Bombay

Jul 2014 - May 2018 GPA: 9.29/10.0

Coursework

Machine Learning
Reinforcement Learning
Mathematical Foundations of ML
Security and Privacy for ML
Data Management for ML
Deep Learning in Computer Vision
Natural Language Processing
Data Structures and Algorithms
Operating Systems
Nonlinear Optimization

Achievements

- Academic Service: Reviewer for
 - EMNLP'21, EMNLP'22
 - Algorithmic Recourse Workshop at ICML'21
- Mentored an MLE intern in Summer'22.
- Winner of Microsoft-UK Hackathon (Summer'19), for building an emissions calculator on Bing Maps.
- Institute Student Mentor, IIT-Bombay (Apr 2017 - May 2018)
- Institute Football Convener, IIT-Bombay (May 2015 - April 2016)
- Silver Medalist in Soccer at the 51st Inter-IIT Sports Meet, Kanpur (2016)
- All India Rank 959 in JEE Advanced 2014

Other

- Teaching Assistant:
 - CS 301 (Data Programming) Fall 2018, UW-Madison
 - MA 207 (Differential Equations) Fall 2016, IIT-Bombay
- Volunteering: Tutored underprivileged students at Abhyasika, Mumbai