

# Goutham Ramakrishnan

## Machine Learning Software Engineer

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in goutham-ramakrishnan

## Experience

### Machine Learning Software Engineer

📅 Jun 2020 – Present

#### Health at Scale Corporation

📍 San Jose, CA

- Working to develop novel machine learning algorithms and software engineering systems to analyze large scale healthcare data.

### Researcher Intern

📅 Jun – Sep 2019

#### Microsoft Research Cambridge

📍 United Kingdom

- Developed an end-to-end framework for discovering and versioning sensitive files across a project cycle, for easing data compliance in healthcare research (🔗 Link).

### Data Analyst Intern

📅 May – Jul 2017

#### American Express

📍 Gurugram, India

- Analyzed customer data and isolated inefficiencies in existing manual underwriting procedures. Designed a unified global framework for manual underwriting.

## Research

### 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

### Interpretable Inference Graphs for Face Recognition

Siddhant Garg\*, Goutham Ramakrishnan\*, Varun Thumbe

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

🔗 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

### Towards Robustness to Label Noise in Text Classification

Siddhant Garg\*, Goutham Ramakrishnan\*, Varun Thumbe\*

RobustML and S2D-OLAD Workshops at ICLR 2021

🔗 Link

### Backdoors in Neural Models of Source Code\*\*

Goutham Ramakrishnan, Aws Albarghouthi

Preprint – Jun 2020

🔗 Link

### Semantic Robustness of Models of Source Code\*\*

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

Preprint – Jun 2020

🔗 Link

\*Equal Contribution by Authors      \*\*Work under submission

## Projects

### Towards Compliant Data Management Systems for Healthcare ML

Goutham Ramakrishnan, Aditya Nori, Hannah Murfet, Pashmina Cameron

Preprint – Nov 2020

🔗 Link

### Advances in Quantum Deep Learning: An Overview

Siddhant Garg\*, Goutham Ramakrishnan\*

Preprint – May 2020

🔗 Link

## Education

### M.S in Computer Sciences

#### University of Wisconsin–Madison

📅 Aug 2018 - May 2020      GPA: 4.0/4.0

### B.Tech in Electrical Engineering

#### Indian Institute of Technology Bombay

📅 Jul 2014 - May 2018      GPA: 9.29/10.0

## Technical Skills

Python

C++

Java

MATLAB

PyTorch

TensorFlow

PySpark

Keras

Git

SQL

SAS

LaTeX

## 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

Bayesian Methods for ML

Data Structures and Algorithms

Operating Systems

Discrete Structures

Computer and Network Security

Nonlinear Optimization

## Achievements

- Member of **Winning Team**: Microsoft Hackathon (UK) – Summer 2019
- 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:**
  - CS 301 (Data Programming) Fall 2018, UW-Madison
  - MA 207 (Differential Equations) Fall 2016, IIT-Bombay
- Volunteering:** Tutored underprivileged students at Abhyasika, Mumbai