Anmol Anand

(979) 326-3375 | aanand@tamu.edu | Portfolio | LinkedIn | GitHub | Codeforces

Education

Texas A&M University, College Station, TX Aug 2022 - May 2024 Master's in Computer Science GPÄ: 3.88 Indian Institute of Technology, Roorkee Jul 2015 – May 2019 Bachelor's in Computer Science GPA: 3.38

Work Experience

Goldman Sachs | Software Engineer II

Jun 2019 – Jun 2022

- Contributed to Search Engineering team's natural-language, petabyte-scale, distributed, search engine.
- Improved search result quality by 48% and summarized results which could go up to a billion documents.
- Reduced average retrieval latency by a factor of 50 through algorithmic improvements.
- Pre-processed large datasets via batch-processing offline jobs.

Magna International | Data Scientist Intern

May 2023 – Apr 2024

- Developed a vision-focused app for image segmentation and classification using Node.js, React, PyTorch.
- Enabled capturing camera images from the UI, and storing on Local or Azure platforms.
- Included an intuitive user interface for annotating and labelling images.
- Allowed training and deployment of renowned models such as AlexNet, ResNet from the UI.

Goldman Sachs | Software Engineer Intern

May 2018 – Jul 2018

• Kronos – Scheduler for Hadoop jobs: Developed a scheduler for a wide variety of batch-processing map-reduce jobs. Automated and monitored months of work through a well-encapsulated program.

ACADEMIC EXPERIENCE

Data Integration Visualization & Exploration Lab | Open Source Contributor Jan 2023 – Apr 2023

- Strengthened DIVE into Graphs (a deep learning library) with GraphAug: a Graph Augmentation method employing Graph Neural Networks. Elevated graph classification performance by generating augmented samples.
- Produced Python library documentation for the GraphAug implementation.

Programming and Algorithms Group, IIT Roorkee | Core Member

May 2016 - May 2019

- Conducted lectures on Data Structures and Algorithms.
- Organized on-campus programming contests Insomnia, CodeBlitz, and CodeCipher.

Indian Institute of Technology | Teaching Assistant - Discrete Structures

Jan 2019 – Apr 2019

• Assisted students with course materials, graded assignments, and facilitated discussions.

Projects

A novel graph clustering method — *Paper*

- Introduced a novel k-way graph conductance function to measure quality of a k-clustering on a graph.
- Compared its effectiveness in finding k-clusters to existing k-way conductance functions.
- Gave a novel proof for a k-way Cheeger's inequality on this conductance function.

Fast image classification using ResNet variant — GitHub

- Developed an advanced image classification model using a novel ResNet variant.
- Achieved an impressive accuracy of 93.56% on the CIFAR-10 dataset in 90 epochs, addressing challenges such as slow convergence.

CodeJudge - Competitive Programming WebApp — GitHub

- Built a Competitive Programming Platform written in Ruby on Rails, deployed using Docker and Heroku.
- Empowered instructors to create problems while enabling students to solve in preferred programming language.
- Implemented real-time code evaluation, developed a leaderboard and integrated a collaborative discussion forum.

Technical Skills

Software: Ruby on Rails, Python, JavaScript, React, NodeJS, NextJS, Docker, Heroku, Kubernetes, Golang, Agile DBs & Cloud: Postgres, SQL, Redis, MongoDB, AWS, Azure, GCP, OCI

ML: Jupyter, PyTorch, PyTorch Geometric, Tensorflow, Keras, Graph Neural Nets, Convolutional Neural Nets, Vision Data: Apache Hadoop, Apache Spark, Map Reduce, Kafka, Protocol Buffers, ANTLR, Information Retrieval, Big Data

ACHIEVEMENTS

- Codeforces: Max rating 2008 (Candidate Master)
- Codechef: Max rating 2172 (5 stars)
- Texas A&M University: International Graduate Student Scholarship (2022-2024)
- Represented IIT at ACM-ICPC India on-site regionals
- IIT Joint Entrance Exam (2015): All India rank 502 out of 1.2 million candidates