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 of Science in Computer Science — GPA: 4.00

Indian Institute of Technology, Roorkee — Jul 2015 – May 2019
Bachelor's in Computer Science — GPA: 3.38

TECHNICAL SKILLS

Software Engineering: Ruby, Rails, Docker, Heroku, Databases, Postgres, Node.js, React, Azure, AWS, Distributed Computing, Protocol Buffers, Cron, Multi-threading, C++, Java, SQL, JavaScript, HTML, Algorithms, Data Structures

Machine Learning: Python, PyTorch, PyTorch Geometric, Convolutional Neural Nets, Vision, Graph Neural Nets, Data Augmentation, Information Retrieval, Big Data, Map Reduce, Apache Hadoop, ANTLR

WORK EXPERIENCE

Magna International | *Software Engineer Intern* — May 2023 – Aug 2023
Developed a vision app for image segmentation and classification using Node.js, React, and 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 II* — Jun 2019 – Jun 2022
Contributed to Search Engineering team's natural-language, petabyte-scale, distributed search engine:
- Improved search result quality and summarized results.
- Processed large datasets via batch-processing offline jobs.
- Optimized retrieval algorithm's latency ensuring a seamless user experience.

Goldman Sachs | *Software Engineer Intern* — May 2018 – Jul 2018
- **Kronos, Scheduler for Hadoop jobs**: Developed a scheduler for diverse 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
- Provided assistance to students with course materials, graded assignments, and facilitated discussions.

PROJECTS

CodeJudge - Competitive Programming WebApp
- 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.

Fast image classification using ResNet variant
- 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.

A novel graph clustering method
- 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.

ACHIEVEMENTS

Codeforces: Max rating 2008 (Candidate Master)
Codechef: Max rating 2172 (5 stars)
Texas A&M University: International Graduate Student **Scholarship** (2022-23)
Represented IIT at **ACM-ICPC** India on-site regionals
IIT Joint Entrance Exam (2015): **All India rank 502** out of 1.2 million candidates