

# Anirudh Prabakaran

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## EDUCATION

**MS in Computer Science** | Georgia Institute of Technology | GPA: 4.0/4.0

Aug 2021 — May 2023

- **Specialization:** Machine Learning
- **Courses:** Graduate Algorithms, Computer Vision, Machine Learning, Natural Language, Deep Learning, Artificial Intelligence, Intro to Health Informatics, Data and Visual Analytics
- **Graduate Teaching Assistant:**
  - CS 7641: Machine Learning (Fall 2022, Spring 2023)
  - CS 4400: Introduction to Database Systems (Fall 2021, Spring 2022)

**B.Tech in Computer Science** | National Institute of Technology - Tiruchirappalli | GPA: 8.18/10.00

Jul 2014 — May 2018

- **Courses:** Data Structures and Algorithms, Operating Systems, Database Management Systems, Computer Networks.

## WORK EXPERIENCE

### Athelas

Software Engineer

June 2023 — Present

Mountain View, CA

- Working at the intersection of software and healthcare, building cutting-edge tools for modern healthcare organizations.

### Meta

Software Engineer Intern

May 2022 — July 2022

Menlo Park, CA

- Worked on end-to-end ML pipelines to make recommendations better (led to an increase in story/reel production with music) and faster (reduced update frequency from 24hrs to 3hrs) on the Music Browser used across Facebook.
- My work involved multiple iterations of building trending and popular music generators, writing Dataswarm (Airflow) pipelines, training large-scale SparseNN models, performing offline evaluations/visualizations and finally A/B testing to users globally.

### Iron Mountain

Machine Learning Engineer

Sep 2020 — Jun 2021

Bangalore, India

- Developed a human-in-loop, event-driven pipeline on GCP for Document Understanding tasks, resulting in significant savings and successful replication across various company verticals. This system now holds a utility patent.
- Demonstrated strong collaboration and communication skills by working closely with product teams to understand business requirements, presenting weekly analyses, and maintaining, deploying, and designing end-to-end pipelines.

### Samsung Research Institute Bangalore

Senior Software Engineer

Jun 2018 — Aug 2020

Bangalore, India

- Demonstrated strong algorithmic competency, earning the prestigious Samsung professional certification and contributing significantly to research, commercialization, and debugging efforts for Home Monitoring solutions integrated with SmartThings.
- Led a research proposal on identifying anomalous segments in surveillance videos using C3D for spatiotemporal feature extraction, successfully presenting the paper at an IEEE conference. [link]
- Developed an SDK for IoT devices to enable efficient peer-to-peer communication using WebRTC, reducing latency, server costs, and privacy concerns, while integrating the solution on devices such as surveillance cameras and robot vacuum cleaners.
- Received a spot award for developing an emergency home audio monitoring engine to detect common household sounds, successfully integrating it into the Galaxy home assistant and presenting the innovation at a workshop in Korea.[link]

## RECENT PROJECTS [LINK]

### Exploratory Video Analytics [project link]

2023

- Developed and contributed to EVA, an open-source AI-relational database with support for deep learning models, enabling efficient analysis of both structured and unstructured data, integrating a range of pre-built models for various data types and applications.
- EVA supports a user-friendly, SQL-like interface to query over videos or images, with optimizations inspired by relational databases, such as function caching, sampling, and cost-based operator reordering, to accelerate Deep Learning pipelines.

### Interactive Twitter Bot Detection through Network Graph Analysis [report link]

2023

- Developed an interactive Twitter bot detection system that combines NLP, network graph analysis, and expert human judgment, leveraging Twibot datasets to train graph embedding models and execute hierarchical clustering.
- Designed a user-friendly interface to display t-SNE visualizations of unlabeled clusters, enabling users to make informed decisions on bot status by reviewing account profiles, enhancing overall detection precision and labeling speed.

## TECHNICAL SKILLS

**Languages and Tools:** Python, C++, SQL, JavaScript, PyTorch, Docker, Git, GCP, Linux, PySpark

## VOLUNTEER AND EXTRA-CURRICULAR

- **Teaching Volunteer, Make a Difference:** Taught classes weekly for school kids belonging to various shelters in Bangalore. [link]
- **Leadership, Undergrad:** Headed publicity and marketing for cultural and departmental events. Part of chess team and coding club.