

# 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:** Intro to Grad Algorithms, Computer Vision, Machine Learning, Natural Language
- **Graduate Teaching Assistant:**
  - CS 7641: Machine Learning (Fall 2022)
  - CS 4400: Introduction to Database Systems (Fall 2021, Spring 2022)
- **Academic Projects:**
  - JingleCraft: An in-depth analysis of various ML algorithms for Music Classification problem statements. (CS 7641) [link]
  - EmojiPrediction: Analysis of recurrent neural networks for emoji category and position prediction in text passages. (CS 7650) [link]

**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

### Meta

May 2022 — July 2022

Software Engineer Intern | Music Ranking

Menlo Park, CA

- Worked on end-to-end ML pipelines to make recommendations better (led to an increase in content 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 data pipelines, building and training large-scale SparseNN models, performing offline evaluations and finally A/B testing to users globally.

### Iron Mountain

Sep 2020 — Jun 2021

Machine Learning Engineer | Insight

Bangalore, India

- Designed and engineered a human-in-loop, event-driven pipeline on GCP to process documents using in-house models. By not relying on Cloud AI APIs, we saved significant costs to the company. This system is currently in process for a utility patent.
- Involved in research and implementation of solutions in Document Understanding (splitting, classification, entity validation/extraction). Actively participated in weekly meetings to present latest papers and demonstrate prototypes.

### Samsung Research Institute Bangalore

Jun 2018 — Aug 2020

Senior Software Engineer | IoT Products and Platforms

Bangalore, India

- Spearheaded a research proposal to identify anomalous segments from surveillance videos. Used C3D to extract spatiotemporal features from video segments and fed them into a CNN to assign regression scores. Presented this publication in a conference. [link]
- Developed an SDK for IoT devices enabling p2p communication using WebRTC with a team of 8 members. By avoiding servers during streaming, this SDK helped to significantly lower latency and reduce server costs.
- Received a spot award for developing an emergency home audio monitoring engine, targeting common household sounds. This solution was successfully ported in our home assistant and demonstrated during a workshop at HQ, Korea. [link]
- Contributed to research, commercialization and debugging of Home Monitoring solutions integrated with SmartThings.
- Awarded the Samsung professional certification for strong algorithmic competency, given to engineers globally.

## RECENT PROJECTS

### Exploratory Video Analytics [link]

2022

- EVA is a visual data management system that supports a declarative language. It enables querying of visual data in user facing applications by providing a simple SQL-like interface for a wide range of commonly used computer vision models.
- Built with Python, Petastorm, (storage), PySpark (execution), PyTorch (CV/ML) and SQLite (underlying DB).
- Working with the Georgia Tech DB research group under Prof. Joy Arulraj, primarily contributing from the ML side.

### Cricboard [link]

2021

- Built a statistics website targeted towards fantasy players, to visualize interesting cricket insights in an interactive and dynamic UI.
- This webapp was made with Python, Streamlit and hosted with AWS. Data was scraped from cricinfo and cricsheet.
- Gathered 30k+ page hits on the opening day of IPL and received a daily average of 2k hits during the tournament.

## TECHNICAL SKILLS

**Programming Languages** Python, SQL

**Frameworks and Tools** PyTorch, Docker, Git

## VOLUNTEER AND EXTRA-CURRICULAR

- **Teaching Volunteer, Make a Difference:** Taught classes weekly for school kids belonging to various shelters in Bangalore. [link]
- **Head, Publicity Team, College Cultural Fest:** Headed a team of 50 members, to increase brand value and participation for the fest.