

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:**
 - Intro 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 and faster on the Music Browser used across Facebook.
- My work involved multiple iterations of building trending/popular music generators, writing Dataswarm 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

- 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.
- 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.

Samsung Research Institute Bangalore

Jun 2018 — Aug 2020

Senior Software Engineer | IoT Products and Platforms

Bangalore, India

- Contributed to research, commercialization and debugging of Home Monitoring solutions integrated with SmartThings.
- 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]
- 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, C++, 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.