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Anirudh Prabakaran

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EDUCATION

MS in Computer Science | Georgia Institute of Technology

Aug 2021 — Present

- **Specialization:** Computational Perception and Robotics
- **Courses:** Intro to Grad Algorithms, Computer Vision, Special Problems (Video Analytics)

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

Graduate Teaching Assistant

Aug 2021 — Dec 2021

College of Computing | Georgia Institute of Technology

Atlanta, GA

- Instructor for CS4400 Intro to Database Systems (Fall 2021).
- Responsibilities include grading assignments, holding weekly office hours, reviewing projects and monitoring piazza.

Machine Learning Engineer

Sep 2020 — Jun 2021

Insight | Iron Mountain

Bangalore, India

- Involved in research and implementation of solutions in Document Understanding (splitting, classification, entity validation/extraction). Actively took part in weekly meetings to present latest papers and demo prototypes.
- Designed and engineered a human-in-loop, event-driven pipeline to process documents using in-house models. By not relying on Cloud AI APIs, our team saved significant costs to the company and also helped replicate the architecture to other verticals.

Senior Software Engineer

Jun 2018 — Aug 2020

IoT Products and Platforms | Samsung Research Institute Bangalore

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. [\[link\]](#)
- Finalist in an internal hackathon among 100+ teams for building and prototyping a chatbot to boost employee productivity. It had the ability to keep track of tasks, learn simple daily actions and execute them again in a user-friendly chat interface. [\[link\]](#)
- Awarded the Samsung professional certification for strong algorithmic competency, given to engineers globally.

RECENT PROJECTS

Exploratory Video Analytics [\[link\]](#)

2021

- EVA is a visual data management system. It supports SQL-like syntax and many commonly used computer vision models.
- Built with Python, asyncio, cmd (to mimic an SQL-like interface), Docker and PyTorch.
- Collaborating with the Georgia Tech DB research group who have been maintaining this project since 2019.

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.

Video Queries on Driving Video Datasets [\[link\]](#)

2021

- Trained a network built over FasterRCNN to issue simple count queries on the Berkeley DeepDrive dataset.
- Was able to achieve real-time inference for common video queries like counting cars, pedestrians etc.

TECHNICAL SKILLS

Programming Languages	Python, C++, JavaScript
Tools and Frameworks	Docker, SQL, PyTorch, Git
Cloud and OS	GCP, AWS, Linux, Windows

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.
- **Department Coordinator, College Sports Fest:** Managed participation and activities of the CS department during the fest.
- **Web Developer, College Coding Club:** Involved in development of various internal projects, events and mentor-ship programs.
- **Sports Contingent:** Represented college in the Chess team, and the department in Cricket and Soccer.