

Anuj Raghani

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Education

Veermata Jijabai Technological Institute (VTI) Aug 2018 - May 2022
Bachelor of Technology in Information Technology, CGPA: 8.92/10

Experience

Deutsche Bank - Software Engineer Jul 2022 - present

- Working as a part of the data science team to develop a semantic search engine that helps users identify similar IT incidents solved in the past, common root causes, and potential solutions.
- Researching ways to optimize query search time, experimenting with state-of-the-art language models to improve precision and engineering full stack products to be delivered to end users at scale.

Citi Bank - Summer Analyst May 2021 - Jul 2021

- Developed an ETL Pipeline, using Spring Boot, extracting configuration details of microservices from diverse servers.
- Helped in creation of a client order simulator to aid QA team in release testing.

Spherical Defense - Research Engineer Intern Feb 2021 - May 2021

- Focused on optimizing the accuracy-latency tradeoff to enhance the performance of their LLM API service, a critical tool used by financial firms to detect anomalous transactions. Implemented in Pytorch library.
- Explored techniques like TensorRT, training on multiple GPUs, Mixed precision training (FP16).

IIIT Delhi - Undergraduate Researcher Dec 2020 - Jan 2022

- Pursuing a thorough research on dynamic computation offloading of IOT devices using deep reinforcement learning under Dr. Arani Bhattacharya .
- Worked on rebuilding an open-source simulator for executing various network topologies.

Technical Skills

- Programming Languages:** C, C++, Python, Dart, Java, Javascript
- Web Frameworks:** Node js, Flask, Fast API, React, SpringBoot, Junit, Jest, Redux
- Machine Learning:** OpenCV , Pandas, Numpy, Matplotlib, NLTK, Tensorflow, Keras, Scikit Learn, PyTorch
- Database & Cloud:** SQL, Oracle SQL, MongoDB, GCP, Openshift, Docker

Projects

Gesture Based Music Controller

- Implemented a GUI that controls music player using predefined static hand gestures
- Used Convolutional Neural Networks for gesture detection and tried various object-localization techniques

Federated Learning on Blockchain

- Created a decentralized, trustless platform that crowd-sources data to improve the accuracy of baseline models, in a federated learning fashion. In return, users are fairly compensated using a smart contract.
- Implemented elastic weighted consolidation technique to prevent catastrophic forgetting of models on new data

Mapify

- A Route Mapping Portal built with Mapbox GL, for registration of undocumented pathways, using crowdsourced locations from volunteers, across mobile and web portals.
- Utilized DB Scan algorithm to study clusters of these routes to verify their presence by analyzing all routes recorded in the vicinity.

Achievements & Extracurricular

- Deutsche Bank Recognition Award for top-performance and significant contributions
- Runners up in Deutsche Bank Global AI Hackathon 2023
- Machine Learning Head, at Developer’s Student Club (DSC) VITI, an initiative by Google
- 1st prize in hack IT 2.0 hackathon organized by KJSCE
- 3rd Runner Up at Hack-N-Code 3.0, 12 hour Hackathon organized by NMIMS
- Volunteer in Rotaract Club, Mumbai.

Research Publications

“A Blockchain approach for Exchanging Machine Learning Solutions over Smart Contracts”, Science and Information Conferences, Jul 2022

“A Novel Approach to Acquire Data for Improving Machine Learning Models through Smart Contracts”, International Conference on Recent Innovations in Computing, Aug 2022

Academic Achievements

Awarded the **Govt. of India Scholarship for Pure Sciences**, under the Inspire Scheme, for standing in the Top 1% of HSC Examinations