Anish Karnik

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EDUCATION

IIT GANDHINAGAR

BTech in Computer Science and Engineering
2021-Present | Gandhinagar, India
Cumulative GPA: 8.83 / 10

BARODA HIGH SCHOOL (ONGC)

Class 12 | HSC
2020-2021 | Vadodara, India
Percentage: 91.23

SKILLS

LANGUAGES

Proficient:

• C++ • Python
• HTML • CSS
• React • Node.js
• JavaScript
• Golang

Familiar:

• C • SQL

OTHER SKILLS

- Machine Learning
- Competitive Programming
- Problem Solving
- Frontend / Backend
- Natural Language Processing
- Deep Learning and Data Science
- MySQL

COURSEWORK

UNDERGRADUATE

- Data Structures and Algorithms
- Computer Networks
- Operating System
- Natural Language Processing
- Machine Learning
- Data Science
- Computer Network Security
- Discrete Mathematics
- Computer Architecture

PROJECTS

SMART PROXY SERVER

September 2023 – November 2023 | GitHub

- Developed an advanced proxy server, prioritizing intelligent HTTP header manipulation for optimized network traffic. Implemented key features like X-Forwarded-For, path transforms, and "accept-language" header handling.
- Integrated TinyLFU caching, dynamically optimizing resource utilization and improving response times for frequently accessed content.
- Performed static and dynamic load balancing strategies for effective distribution of client requests.

REALTIME CHATAPP USING MERN STACK

August 2023 – September 2023 | GitHub

- Designed and implemented a full-stack chat application using JavaScript, React for the frontend, and Node.js with Express for the backend.
- Developed secure registration and login functionalities, ensuring data privacy. Integrated an avatar selection feature for user personalization.
- Integrated Socket.io for real-time, bidirectional communication, enhancing the application's responsiveness and enabling one-to-one socket chat functionality.

SENTIMENT ANALYSIS USING NATURAL LANGUAGE PROCESSING

July 2023 – August 2023 | GitHub

- Employed a pre-trained NLP model from Hugging Face to conduct sentiment analysis on comments extracted from the top posts in the subreddit. Utilized the AutoTokenizer to preprocess data for model input and performed inference on the model. Learnt utilizing trained models for NLP tasks. Conducted exploratory data analysis to gain insights into the dataset's characteristics and trends.

ALGORITHMIC TRADING USING SMARTAPI

November 2023 | GitHub

- Created a smart program for trading stocks that uses clever strategies to know buying and selling signals. Delivered exceptional market performance, surpassing Nifty 50, and achieving a return of approximately 75% on prominent stocks like Reliance, resulting in an alpha of 43%.
- Understood the working of stock broker APIs, the use of libraries such as TA-lib.

LAB MANAGEMENT DATABASE AND WEBAPP

March 2024 – April 2024 | GitHub

- Created database for IIT Gandhinagar laboratories with various features considering each view. Also created database using MySQL and Flask.
- The webapp was able to book laboratories, book equipment, check their availabilities, return equipment, create courses by professors and students can join the offered courses.

MODEL IMPLEMENTATION, PRETRAINING & FINE-TUNING ANALYSIS

November 2023 | GitHub

- Implementation of the Bert-base-uncased model, pretrained the model and fine tuned the model for SST-2 Classification and Question-Answering tasks.
- Calculated and reported task-specific metrics for classification and question-answering on test splits, highlighting a comprehensive understanding of model performance. Learnt using and uploading models from Hugging Face.