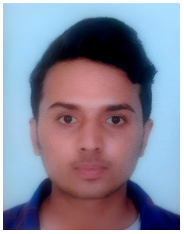
GAGANDEEP H S



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EDUCATION:

B.Tech(Currently Pursuing) - PES University, Bengaluru, India **2020 - 2024**
Pre-University - RV PU College, Bengaluru, Karnataka, India **2018 - 2020**
School - Vidyaniketan Public School, Bengaluru, Karnataka, India **2018**

TECHNICAL SKILLS:

- **Programming Languages** - Java, Python, JavaScript, C, SQL.
- **Database –** MongoDB, DuckDB, MySQL.
- **Frameworks/Libraries –** React js, Svelte js, FastAPI, Firebase, Express.js, Tensorflow, Scikit-Learn, Streamlit, Pandas.
- **Tools/Software –** Git/ GitHub, Docker, Microsoft Azure VM, IntelliJ IDEA, PyCharm, MS Excel, DBeaver, Visual Studio Code.

ACADEMIC PROJECTS:

Throughput Estimation Of Extreme High Throughput WLANs Using Graph Isomorphism Network **DECEMBER 2022 - PRESENT**

- Explored high throughput WLANs using Graph Isomorphism Network for throughput prediction.
- Different WLAN configurations were contrived by varying the dimensions of placing stations. Had varied positions in the z-axis by 2 units up to 10, central frequency fiddling between 2.4-5 GHz, and channel bonding varied between 0-16.
- Several throughput parameters were estimated: RSSI(~ -50 to -60dBm), airtime(~50-98s), interference(~-70 to -120 dBm), and signal-to-input noise ratio(~30-45) using a network simulator called Komondor and achieved 98% accurate predictions with the GIN model.
- The research paper of our project was presented in a SCOPUS indexed conference in China: ETAI - 2024.

GPT-3 chatbot using React JS and FastAPI **JANUARY 2024**

- Developed a backend server using FastAPI to stream ChatGPT responses to clients based on user messages, integrating OpenAI's API for real-time interaction.
- Implemented a responsive frontend in ReactJS to display ongoing conversations, utilizing streaming responses and handling user inputs dynamically.
- Enhanced user experience with Material-UI components, managed state with React hooks, and ensured seamless communication between backend and frontend via HTTP requests.

Creating a Netflix Clone using React JS and Firebase **AUGUST 2023**

- Built a Netflix clone using React.js for the front-end and Firebase for the back-end, showcasing custom design elements and key functionalities like home, sign-in, sign-up, browse, and movie player pages.
- Implemented React Router for smooth navigation and used React Hooks (useState, useContext, useEffect, useHistory) for efficient state and side effect management.
- Styled the app with CSS Modules, ensured code quality with StyleLint and EsLint, and managed CI/CD with GitHub Actions.

EXPERIENCE:

Full Stack Web Developer (*Intern*) **FEBRUARY 2024 – JULY 2024**

Greywiz Pvt. Ltd.

- The ongoing project involves flattening of data across hierarchies in folders, into a big file containing all the information. The resultant file was uploaded to the DuckDB database, which is known for its swift performance on huge data. Svelte js handled the frontend part, and the backend framework being FastAPI.
- An Ordinary Least Squares regression model was used and the dataset was trained for a target variable. The regression report was also obtained and displayed. OLS model was chosen since it had better R^2 value as compared to exponential and polynomial regression models.
- A statistical description of the data uploaded was retrieved and an html component was made using ydata-profiling in Python. The project's development was done in two parts: data preprocessing with FastAPI and Celery task distribution, while Svelte managed and rendered the API endpoints responsible for showing various data visualizations. A rule engine has been designed according to everything in the dataset for the for data governance and alerts. The software was deployed on a Microsoft Azure VM server.