Naman Raj

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Education

Vellore Institute of Technology — Vellore, Tamil Nadu
Bachelor of Technology in Computer Science and Business Systems — *Aug. 2021 – Present*

Ramakrishna Mission Vidyapith — Deoghar, Jharkhand
AISSCE - PCM (94.8%) — *June 2019 – June 2021*

Projects

CheapKraft | *HTML, CSS, JS, Selenium* — Sep. 2023 – Nov. 2023

- Spearheaded the development of CheapKraft, a dynamic web interface that efficiently aggregates and compares flight prices from multiple sources. Leveraged web scraping techniques and API integrations to fetch real-time data from various airlines and online travel agencies, providing users with a comprehensive and up-to-date overview of the cheapest flight options.
- Employed modern front-end technologies like HTML, CSS, and JavaScript to design a visually appealing platform, enhancing the user experience and enabling effortless comparison of flight prices.
- Conducted rigorous testing and optimization to enhance performance and ensure accurate and reliable flight price information.

Air quality predictor | *Python(Machine Learning), SQL* — Jan. 2023 – Present

- Conducted extensive data analysis on India's Air Quality data spanning the years 1990-2015, sourced from the Ministry of Environment and Forests and Central Pollution Control Board. Utilized Python and data analysis libraries to explore and preprocess the dataset, ensuring data cleanliness and consistency.
- Developed a robust machine learning model using Python and scikit-learn to predict the Air Quality Index (AQI) based on multiple features, including concentrations of sulphur dioxide, nitrogen dioxide, respirable suspended particulate matter, and suspended particulate matter. Employed various regression techniques and fine-tuned the model to achieve accurate AQI predictions.
- Implemented a multi-class classification approach to categorize the Air Quality into distinct classes, such as good, moderate, poor, unhealthy, and healthy. Utilized techniques like decision trees, random forests, and evaluation metrics like accuracy, precision, and recall to ensure the model's effectiveness in classifying the air quality levels.

AI-Enabled Affordable Eye Healthcare Solutions | *Python, React, tfImageRecognition API*

- Led a cross-functional team in the development of an innovative AI-powered healthcare solution focused on eye diseases during a high-profile hackathon. Collaborated with experts in AI algorithms, consumer devices integration, and eye healthcare to design a cutting-edge system that revolutionizes eye tests' accessibility and affordability.
- Successfully implemented AI algorithms and integrated them with consumer devices to create an intuitive interface for eye tests. Utilized Python and deep learning frameworks to enable early detection and timely intervention for various eye diseases, including glaucoma, diabetic retinopathy, myopia, heteromyopia, color blindness, Nyctalopia, and more.
- Demonstrated strong problem-solving skills by addressing challenges related to data analysis, algorithm optimization, and user experience design. Effectively communicated complex technical concepts to non-technical stakeholders, highlighting the potential impact of the solution on eye healthcare accessibility and quality.

Technical Skills

Languages: Java, Python, C/C++, Oracle SQL, JavaScript, HTML/CSS, R
Frameworks: ReactJS, Node.js, Material-UI
Developer Tools: Git, VS Code, Visual Studio, PyCharm, Dev C++, IntelliJ, Eclipse, RStudio
Libraries: pandas, NumPy, Matplotlib, Scikit-learn, Selenium