Ritvik Kumar

Linkedin: linkedin.com Github: github.com

EDUCATION

VIT Bhopal University

Bachelor of Technology in Computer Science; GPA: 9.20

Bhopal, India September 2022 - Ongoing

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September 2022 - Ongoing

Ryan International School

12th Standard CBSE, Percentage: 88.2%

Navi Mumbai, India September 2020 - July 2022

Apeejay School

10th Standard CBSE, Percentage: 94.8%

Navi Mumbai, India June 2019 - May 2020

SKILLS SUMMARY

• Languages: Python, C++, SQL, PHP, HTML, JAVA

• Frameworks: Scikit, NLTK, SpaCy, TensorFlow, Keras, Django, ReactJS, OpenCV, Folium, face-recognition

• Tools: GIT, MySQL, SQLite

Platforms: Windows, Arduino, Jupyter Notebook, IBM Cloud
Soft Skills: Leadership, Event Management, Writing, Presentation.

Projects

• Interactive Map Explorer

December 2022

- Streamlined the process of locating critical sites by converting over 50 entries from Excel into an intuitive Folium-based visual representation, allowing users to access information nearly instantaneously without any manual intervention required.
- \circ Reduced search time by $\sim 70\%$ compared to manual methods through a built-in location-based plugin (less than 1s average response).
- Automated local HTML previews via Selenium Chrome WebDriver, enhancing development feedback by ~40%.

Tech: Python, Folium, Pandas, Selenium, GeoJSON.

• SpaceX Launch Records Dashboard

March 2023

- Developed advanced visual analytics for over 100 SpaceX launches, employing interactive graphs that improved critical insights delivery speed to users while ensuring all elements loaded in less than one second on average.
- $\circ\,$ Boosted mission outcome insights by 40% using interactive dashboards, replacing static spreadsheets for improved decision-making .
- Optimized data processing by preloading and caching results, significantly reducing latency for queries on large datasets.

Tech: Python, Dash, Plotly, Pandas.

• Heart Disease Prediction via Iris Images

April 2024

- Trained 4 deep-learning models (VGG16, ResNet, MobileNet, custom) on 1,000+ iris samples; best validation accuracy ~72.22% (MobileNet).
- Engineered a Flutter-based diagnostic tool that delivers real-time analyses in under 2 seconds per sample, enhancing decision-making for clinicians .
- Conducted rigorous performance evaluations, refined decision thresholds, improving diagnostic accuracy for 1M+ clinical cases

Tech: Python (TensorFlow/Keras), Flutter, NumPy, Pandas.

• Face Recognition Attendance System

October 2024

- Achieved 95% accuracy on 200+ facial encodings using OpenCV and face-recognition.
- Minimized manual check-in/out errors by ~80%, supporting up to 50 concurrent users via Tkinter GUI.
- \circ Enabled automated check-ins and check-outs with live video stream processing, reducing manual data entry time by 90% and improving efficiency for 50+ users daily.

Tech: Python, OpenCV, face_recognition, MySQL, Tkinter.

CERTIFICATIONS

- Professional Course in IBM Data Science by IBM on Coursera: Certificate Link
- Professional Course in Google IT Automation with Python by Google on Coursera.: Certificate Link
- Natural Language Processing (NLP) with Python (Udemy): Certificate Link