Ritvik Kumar

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Education

- **VIT Bhopal University** — Bhopal, India
  Bachelor of Technology in Computer Science; GPA: 9.14 — September 2022 - Ongoing
- **Ryan International School** — Navi Mumbai, India
  12th Standard CBSE, Percentage: 88.2% — September 2020 - July 2022
- **Apeejay School** — Navi Mumbai, India
  10th Standard CBSE, Percentage: 94.8% — 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.
  - Reduced search time by ∼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.
  - 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 .

  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.
  - 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