Ravi Kumar

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LinkedIN | GitHub Portfolio Medium

Education

Indian Institute of Technology Jodhpur Graduation date: May 2023
M.Sc. in Mathematics ***CGPA: 7.77/10***

University of Lucknow Graduation date: Sep 2020
B.Sc. in Physics, Chemistry, Mathematics ***CGPA: 8.0/10***

Skills

Languages: Python, C++, SQL, HTML, CSS, Latex

Libraries: PyTorch, TensorFlow, openai, Pandas, Numpy, Matplotlib, Scikit-Learn, etc.

Technologies & Tools: Docker, MySQL, AWS EC2, S3, Streamlit, VS Code, LaTex, Jupyter Notebook, Flask, Git, DVC, MLFlow, DagsHub, GitHub Action Server (CI/CD/CD), CNN etc.

Academic Courses: Programming Techniques, Machine Learning, Optimization, Financial Engineering, Computer Graphics, Deep Learning, Data Structures and Algorithms.

Work experience

Data Science Intern, *ineuron.ai* *(Mar 2024 - present)*

- Model building on the **insurance premium** dataset to predict the premium price.
- Model tracking with **MLFlow** and Data pipeline tracking with **DVC** on the **DagsHub**.

Projects

Movie Recommendation System *(Sep. 2023 - Oct. 2023)*

- Utilized Collaborative-Boosted Content-Based Filtering to enhance recommendation accuracy by integrating 90% of content-based filtering and 10% of the collaborative filtering. Data was collected from IMDb and OMDb API.
- **Tools and technology:** Python, Flask, Azure, NLP, HTML, CSS, Bootstrap, JavaScript, Cosine Similarities, Git.
- **Links:** Github, Project Demo, Blog

Python Package Development for database: dbautomate *(Dec. 2023 - Feb. 2024)*

- This package has the functionality to connect with databases, upload the data, save the data, and delete the data from the database in an interactive manner.
- **Technologies:** Python, MySQL, MongoDB, GitHub Action Server. Use case: *pip install dbautomate*.
- **Links:** GitHub, PyPI , Docs

Medical images classification *(Feb. 2024 - Mar. 2024)*

- Developed a robust medical image classification model utilizing state-of-the-art deep learning techniques.
- Trained the model to differentiate between Normal and Pneumonia X-ray images, achieving high classification accuracy.
- **Tools & Technologies:** Python, Streamlit, Docker, AWS EC2, S3, PyTorch, CNN, MLOps, CI/CD/CD.
- **Link:** GitHub

Stock Price Prediction *(Mar. 2024 - Mar. 2024)*

- Implemented a robust data fetching mechanism to retrieve Open-High-Low-Close (OHLC) data during runtime for real-time analysis. Gathered and processed historical 10 years of stock price data for analysis.
- Implemented visualizations to illustrate the LSTM model's performance and generated comparisons between predicted and actual Apple stock prices for assessing model effectiveness and further forecasted stock price for the next days.
- **Tools & Technologies:** TensorFlow, LSTM, MLOps, Flask.
- **Skills Demonstrated:** Time Series Analysis, Machine Learning, Optimization, Data Visualization, Model Evaluation
- **Link:** GitHub

Publication

- **Dynamics and Chaos Control of the Deformed K Map** *(Jan 2023-May 2023)*
  Aishwaraya, **Kumar, R.**, Chandramouli, V.V.M.S. (2024). In: Singh, J., Anastassiou, G.A., Baleanu, D., Kumar, D. (eds) Advances in Mathematical Modelling, Applied Analysis and Computation. ICMMAAC 2023. Lecture Notes in Networks and Systems, vol 953. Springer, Cham. link.