

Kratik Rath

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Education

Indiana University - Bloomington

Master of Science in Data Science

August 2024 { Present

Bloomington, Indiana

Medi-Caps University

Bachelor of Technology in Computer Science and Engineering - CGPA 8.63

August 2019 { July 2023

Indore, India

Technical Skills

Languages: Python, C++, R, C#

Tools: Android Studio, Visual Studio, Tableau, Jupyter Notebook, PyCharm, Microsoft Excel, GitLab, GitHub, Git

Technologies/Frameworks: Flask API, ASP.NET, Docker

Databases: SQL, MySQL, Microsoft SQL, SQLite, JSON

Machine Learning/Libraries: TensorFlow, Keras, Neural Networks, CNN, OpenCV, Matplotlib, Pandas, Numpy, Pyodbc, Openpyxl, Scikit-learn, Seaborn, Regression, Clustering, Arimax and Sarimax

Work Experience

Swastika Investmart Ltd.

January 2024 { July 2024

Software Engineer Intern

Indore, India

- Automated Digital Marketing reports using Flask API and Python which analyzed 5 million records daily of potential clients from different zones and scheduled reports on mail at midnight via cronjob.
- Developed an ASP.NET API to check the PendateStatus of clients in the MutualFunds database for the past 7 days and update the Netcore list for further actions.
- Designed a Docker-based universal scheduler, streamlining API scheduling for the team from a single system.

Mahindra and Mahindra Ltd.

January 2023 { April 2023

Data Analytics Intern

Mumbai, India

- Constructed ARIMAX and SARIMAX time-series forecasting models using Python on 20 years of monthly regression data (2001-2020), achieving 87% accuracy in predicting financial trends for the next 6 years. Also, performed ETL processes for data preparation, enabling further visualization and analysis.
- Created matrix of 1k+ data on MS Excel for different car models to enhance individual tracking of parts.

Tech Mahindra Ltd.

June 2022 { August 2022

Student Trainee

Pune, India

- Acquired in-depth knowledge of CRM, E2E Billing, OSS, and BSS systems.
- Analyzed structured CRM data using MS Excel and enhanced data interpretability by creating 5 interactive dashboards in Tableau enhancing insights for better decision-making.

Projects

Prediction of Medical Insurance Charges | Jupyter Notebook, Python

November 2023

- Cleaned and processed a dataset of 1,337 records, ensuring data integrity for machine learning predictions.
- Predicted medical insurance charges using Random Forest Regression and Time Series models (SARIMAX, ARIMAX), achieving a MAE of 2572.81 and R^2 of 0.88.

Time-series forecasting on Air Passengers data | Jupyter Notebook, Python, SQLite

April 2023

- Forecasted air passenger traffic using ARIMA and SARIMAX models on a monthly dataset (1949-1960), attaining an accuracy of 97-98%.
- Checked seasonality and continuity using ACF and PACF methods; tested models using AutoARIMA for the best fit.

Traffic Sign Classification System | Visual Studio, Jupyter Notebook, Python

December 2022

- Set up a traffic sign classification system with the German Traffic Sign Recognition Benchmark (GTSRB) dataset which has 40 classes and 50,000 images
- Implemented Convolutional Neural Networks (CNN) using Python and Keras, achieving an accuracy of 95.12%.

Leadership

Medi-Caps Innovation and Incubation Center

August 2021 { December 2022

Vice-President

Medi-Caps University

- Overseeing the day-to-day operation of the Incubation Centre (with 50+ members and 5 team divisions) and working with student start-ups closely.
- Planned and executed virtual-tech-fest Aarambh-2020 as a team lead
- Gave a webinar on "Why Innovation is Important" in Medi-Caps University as Innovation Ambassador under IIC (Institution's Innovation Council).