Kushagra Agrawal

Data Scientist

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PROFILE

I am a budding Data Scientist with practical experience in building full-stack data science projects. I have hands-on expertise in leveraging machine learning, data analysis, and visualization techniques to solve real-world problems, coupled with a growing understanding of mathematics, statistics, and programming for data-driven decision-making.

PROJECTS

Fire Weather Index Prediction GitHub Link

- Designed and implemented a **Fire Weather Index (FWI) Prediction** system to assess and predict wildfire risks based on meteorological conditions.
- Developed in **Python** with advanced **machine learning models** to predict FWI values accurately, enabling informed decision-making for fire management and prevention.
- Utilized **climate datasets** comprising temperature, wind speed, precipitation, and humidity for training and testing.
- Reduced prediction errors by **20%** compared to baseline models through hyperparameter tuning and feature engineering.
- Integrated visualizations using **Matplotlib** and **Seaborn** to provide intuitive and actionable insights for users.

Customer Risk Analysis (PowerBI Dashboard) GitHub Link

- Built a **Customer Risk Analysis Dashboard** for a financial services firm to assess customer creditworthiness and fraud risks.
- Utilized **Power BI** to create an interactive dashboard featuring **dynamic visuals** such as heatmaps, bar charts, and filters for deep dives into customer segments.
- Incorporated risk scores using statistical models, clustering algorithms, and key metrics like **credit risk rating, debt-to-income ratio**, and default probability.
- The dashboard facilitated a **30% reduction in manual risk evaluation time**, enabling quick identification of high-risk customers.

Jarvis Voice Assistant GitHub Link

- Developed a **voice-controlled personal assistant, Jarvis**, to perform routine tasks and provide real-time information.
- Built using **Python** with integrations of **speech recognition** (Google Speech-to-Text API) and **text-to-speech** (pyttsx3) libraries.
- Enabled features such as **web search, email sending, weather updates**, and opening system applications through voice commands.
- Utilized **Natural Language Processing (NLP)** to interpret user intents and respond conversationally.
- Integrated **APIs** for retrieving data such as news, weather, and current events dynamically.
- Enhanced productivity by **automating repetitive tasks** and offering personalized assistance.

EDUCATION

Bachelor's Degree, *Amity University, Noida;* July 2024–July 2024
- Relevant Coursework: Algorithms and Data Structure, Database Management System, Operating System, Computer Network, Linear Algebra, Discrete Mathematics, Fuzzy Logic and Big Data

Noida, Uttar Pradesh

Schooling, *Agarwal Vidya Vihar; Surat;* 2012 – 2024
- Relevant Coursework: Communication, Probability and Applied Statistics, Python Programming, Life Ethics

Surat, Gujarat

Publications

- **My Data Science Learnings So Far** (11/2024)
- **Struggles in My Data Science Journey** (08/2024)
- **My Journey into the World of Data** (08/2024)

SKILLS

Machine Learning | **Python** | **MySQL** | **PowerBI** | **Statistical Analysis** | **Microsoft Excel** | **Exploratory Data Analysis** | **Feature Engineering** | **Mathematics** | **Communication**

INTERESTS

Playing Badminton, Chess | Writing Tech Blogs | Traveling | Reading Books