Umang Dobhal

Computer Science Engineer

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Profile

Hello, I'm Umang Dobhal, a Computer Science Engineering student from New Delhi, currently studying at Dronacharya College of Engineering. My academic and professional journey is rooted in a deep passion for software development, data analytics, and enhancing user experiences through innovative technology solutions. I am particularly skilled in Python, Tableau, and Power BI, and I am committed to leveraging advanced analytics to drive data-driven decisions. I enjoy exploring new technologies, delving into programming challenges, and collaborating on diverse projects that enhance my skills and contribute to my growth as a technologist.

Professional Experience

Research Intern, *(Kyushu Institute of Technology)* **Fukuoka, Japan** *02/2024 - 04/2024*

- Synthetic Skeleton Data Generation Using Large Language Model for Nurse Activity Recognition.
- Worked closely with Dr. Sozo Inoue on the development of a novel methodology to enhance nurse activity recognition.
- Contributed to designing and implementing a methodology that leveraged a large language model to generate synthetic skeleton data.
- Assisted in evaluating the effectiveness of the methodology in improving classification accuracy for complex medical activities, including Endotracheal suctioning (ES).
- Enhanced skills in data analysis, machine learning, and interdisciplinary research through active participation in the project.

Software Trainee Intern, *(MindIT Systems)* **New Delhi, Delhi** *07/2023 - 09/2023*

- Collaborated with the development team to create robust, automated test scripts for a dynamic website using Selenium and Python.
- Contributed to defect identification and resolution, enhancing the overall quality assurance process.

Education

B.Tech Computer Science Engineering *Dronacharya College of Engineering* **Gurugram, Haryana** *2020-2024*
Intermediate *The Indian Heights School* **New Delhi, Delhi** *2019-2020*
Matriculation *Shiv Vani Model Senior Secondary School* **New Delhi, Delhi** *2017-2018*

Projects

- Bird Species Classification - Github
  - Analyzed bird species with features including bill length, bill depth, wing length, mass, location, and sex.
  - Implemented and compared three models - Decision Tree, Random Forest, and Gradient Boosting Classifiers. Achieved the highest accuracy of 96.55% with the Random Forest Classifier.
  - Successfully predicted bird species in the test dataset using the trained Random Forest model.
- Cricket World Cup 2023 Power BI Report - Github
  - Successfully completed a dynamic Power BI project focused on the World Cup 2023
  - Curated comprehensive insights by integrating match summaries, detailed bowlers' and batters' statistics, and players' information tables to construct a World XI team.
- Temperature Prediction -Github
  - Using Python along with powerful machine learning algorithms like XGBoost and linear regression, I analyzed historical temperature data from 1901 to 2021, available through the government's official platform.

Publications

- Application of Large Language Models in Healthcare: A Concise Review
  - Successfully presented the paper in International Conference on Technological Innovations in Industry 5.0 (ICTII)
  - The research paper is focused on the transformative impact of Large Language Models (LLMs) in healthcare, examining their applications in patient interaction, medical documentation, research support, and addressing challenges like model bias.

Online Courses & Certifications

- DevOps on AWS - Coursera
- Data Analytics - PrepInsta
- Introduction to Generative AI, Google Cloud - Coursera

Skills

- **Programming Language:** Python, C++, Selenium
- **Data Visualization:** Microsoft Power BI, Tableau
- **Software:** Jupyter Lab, Unity Engine, VS Code