# **Pulkit Dhingra**

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Versatile technologist with expertise in Python, R and Java, complemented by hands-on experience in Terraform and cloud platforms (AWS, GCP, Azure). Skilled in designing and implementing scalable applications, dashboards and end-to-end pipelines, leveraging CI/CD, containerization, and automation to streamline development workflows. Proven ability to translate business requirements into robust technical solutions, collaborate effectively with cross-functional teams, and mentor peers. Enthusiastic about continuous learning, exploring emerging technologies, and fostering a collaborative, high-impact work environment.

#### **EDUCATION**

# University of Bristol, Bristol, United Kingdom

Sep 2025

Msc Data Science

- Conducted comprehensive analysis of energetic particle measurements from meteorological balloon flights—performing data extraction and instrument corrections, generating altitude and latitude-dependent flux profiles, applying solar-cycle and atmospheric adjustments, and correlating results with satellite observations.
- Completed research project that includes analysis of spectroscopical result of crop plant for nutrient estimation using Machine Learning and Deep Learning based models.
- Runner-up at University of Bristol Bris-Hack hackathon for innovative coding and ML algorithms.

## Dr A.P.J Abdul Kalam Technical University, Lucknow, India

Jun 2022

Bachelor of Technology Computer Science

- Maintained a high GPA of 7.9/10, demonstrating a strong understanding of the material and a dedication to academic excellence.
- Secured first place in the annual coding and machine learning competition by building an end-to-end software solution—including data ingestion pipelines and RESTful APIs—and fine-tuning ML models for peak performance.

# **WORK EXPERIENCE**

### Ford Motor Company, Data Scientist, Chennai

(1 year 8 months) Jan 2023 - Aug 2024

- Collaborated with the Supply Chain Analytics team to architect and execute highly efficient data-driven pipelines, allowing real-time monitoring and optimization of the supply chain operations.
- Conducted advanced analytics on supply chain data, uncovering trends that improved inventory management and supported pricing decisions.
- Designed and deployed machine learning models to forecast demand, resulting in a 10% reduction in overstock and stockout costs.
- Created and personalized interactive dashboards, providing essential insights for business teams, thereby aiding in strategic decision-making and leading to improved business outcomes in the supply chain.
- Implemented machine learning algorithms to forecast future demand, leading to a reduction in stockouts and overstock situations, and improving overall operational efficiency.
- Co-ordinated with cross-functional teams to translate business needs into technical requirements, ensuring the successful deployment of data science projects that aligns with company's strategic goals.

### Nagarro, DevOps Engineer, Lucknow

(9 months) May 2022 – Jan 2023

- Integrated pipelines with Azure Cloud, AWS Cloud, and Google Cloud services, thereby automating application deployment and infrastructure management which led to a significant increase in team efficiency and a marked reduction in deployment errors.
- Built Infrastructure as Code (IaC) principles to create Terraform scripts, enabling automated creation and configuration of cloud infrastructure. This initiative prompted easy replication and standardization of environments, enhancing operational efficiency.
- Transformed the system architecture by designing and implementing containerization solutions with Docker and Kubernetes, leading to a 35% improvement in scalability and resource utilization.
- Implemented continuous integration and continuous delivery (CI/CD) pipelines using Jenkins and Git, drastically reducing the code integration time and improving code quality by 40%.

**Shashwat Foundation,** Data Science and AI Trainer - Internship

(4 months) Jan 2021 - April 2021

- Served as a mentor for students from government schools in the Responsible AI For Youth Program, an initiative by the Government of India to introduce Artificial Intelligence to students.
- Guided students in building Machine Learning and data science projects in the domains of Natural Language Processing and Computer Vision, fostering skills and interest in AI.
- Provided instruction and mentoring on basic machine learning concepts, enabling students to gain practical experience and knowledge in this field.

#### **SKILLS**

**Technical Skills:** Automation, data analysis, data modeling, data pipelines, database management, data architecture, data engineering, high-performance computing, cloud computing, applied machine learning, AWS cloud, Google Cloud Platform, Jenkins, CI/CD pipeline.

Programming Skills: Python, R, SQL, Git, HTML, JavaScript, Java, CSS, Rest-API, BigQuery, Terraform.

**Frameworks & Tools:** Torch, TensorFlow, Hugging Face, Django, Flask, pandas, numpy, StreamLit, plotly, matplotlib, Airflow, DBT, Tableau, Qlik Sense, Power BI, JIRA, Docker, Kubernetes.

#### ARTICLES AND RESEARCH

## @Byte-Sized-Brilliance-AI @GeeksForGeeks

Feb 2025 - Present

- Founder and Author @Byte-Sized-Brilliance-AI, an AI-first blog site providing articles from basic maths behind machine learning algorithms to Agent based AI systems. Contributed 30+ articles and counting. [Link]
- Technical Writer @Geeks-for-Geeks with 15+ articles, focused on topics related to Python, R, and Machine Learning. [Link]

Sketch to Face [Link] Nov 2022

- The paper introduces a new method leveraging Generative Adversarial Networks (GANs) for enhanced visual representation tasks.
- The method eliminates the need for specialized artists or manual sketching processes.
- Users can create freehand sketches that serve as input for the model. The GAN model generates coloured images based on the provided sketches.

### Glass Identification using XG-Boost [Link]

Aug 2021

- The paper presents a method for analysing the chemical composition of glass particles.
- The method enables the classification and separate analysis of glass fragments based on unique chemical composition.
- Provides valuable information to identify the source and origin of the glass fragments.

#### **PROJECTS**

# **Agentic-AI Documentation Generation [Link]**

Agentic-AI, LangGraph, LLMs

 Leverages Agentic-Al to automagically transform Python code into rich HTML docs detailing underlying methods and algorithms and generate contextual blog-style narrative descriptions.

### Hindi GPT Neo 2.7B [Link]

LoRA Fine Tuning LLM, Conversational AI

• Integrated lightweight LoRA adapters into GPT-Neo 2.7B fine-tuning pipeline on Wikipedia-sourced Hindi language data, creating an efficient LLM for context aware Hindi conversation.

# Trend Analysis in E-Commerce Space [Link]

SQL, Spark, Big-Data, Analytics

• Performing data modelling (STAR schema) of raw data extracted from Kaggle and e-bay. Integrate data cleaning, validating and performing analytics within the pipeline using SQL and pyspark.