

# Debasmita Chatterjee

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## Technical Skills

**Languages:** Python, R, SQL

**Machine Learning and AI:** TensorFlow, Keras, PyTorch, Scikit-learn, Reinforcement Learning, NLP (BERT, GPT, LSTM), Computer Vision

**Data Science:** Pandas, NumPy, Feature Engineering, Statistical Modeling

**Visualization and BI:** Tableau, Power BI, Streamlit, Plotly, Excel

**Big Data and Tools:** Apache Spark, Google Colab, Jupyter Notebook, Git, GitHub, RStudio, Visual Studio Code

**Additional:** Blender, Unity

## Education

**Lovely Professional University** B.Tech in Computer Science and Engineering, Jalandhar, Punjab CGPA: 6.98

**DAV Public School** Intermediate, Rupnarayanpur, West Bengal Percentage: 75

**Green Point Academy** Matriculation, Kulti, West Bengal Percentage: 84

## Experience

### AI Trainer – Outlier.ai (Remote)

- Conducted **prompt engineering and model evaluation** for LLMs, improving response accuracy and reasoning by **25%** through iterative feedback.
- Designed, tested, and refined **AI prompts** across multiple domains, increasing output clarity and contextual relevance by **30%**.
- Collaborated in **Reinforcement Learning with Human Feedback -based fine-tuning** and **data quality enhancement**, driving a **20% improvement** in model consistency and adaptability.

## Projects

### GenAI-Driven Pricing Optimization Engine *(TensorFlow, Keras, PPO, Streamlit)* [GitHub]

- Built a **GenAI-based dynamic pricing system** using Proximal Policy Optimization to optimize real-time pricing and recommendations.
- Designed a **reinforcement learning environment** with actor-critic networks and deployed an interactive **Streamlit dashboard** for performance visualization.

### SmartStyle Analytics *(Streamlit, Plotly, Tableau, Machine Learning)* [GitHub]

- Developed an **AI-powered fashion recommendation system** integrating data science and visualization tools for retail analytics.
- Created **interactive Power BI dashboard** to analyze brand performance, pricing trends, and customer behavior for data-driven insights.

### AI-Powered Return Validation System *(TensorFlow, Scikit-learn, NLP, Computer Vision)* [GitHub]

- Built an **AI-driven return validation system** using NLP and computer vision for automated defect detection and fraud prevention.
- Developed **transformer and CNN models** achieving **90%+ accuracy**, with **Streamlit and Tableau dashboard** for risk and sentiment analysis.

## Certifications

**Google Advanced Data Analytics – Coursera** Aug 2025

**IBM Generative AI Engineering – Coursera** Aug 2025

**Microsoft AI & ML Engineering – Coursera** Aug 2025

**Microsoft Power BI Data Analyst – Coursera** Aug 2025

**Learn SQL Basics for Data Science – Coursera** Sep 2025

**MLOps | Machine Learning Operations – Coursera** Sep 2025

**Oracle Cloud Infrastructure 2025 Data Science Professional (1Z0-1110-25) – Oracle (70%)** Oct 2025