Abhishek Singh

Machine Learning and Computer Vision Research Engineer
LinkedIn | +4407849780699 ,+6580896291 | Huggingface

abhisteak@gmail.com •
Address: 504 Jelapang Road,Singapore

Aspiring AI/Machine Learning Engineer, leveraging analytical skills and technical expertise to drive innovation and efficiency. Proven ability to deliver impactful solutions that align with strategic business goals.

Skills

Python | PyTorch | Tensorflow| Machine Learning | Deep Learning | Computer Vision | Stable Diffusion | Large Language Models | Datasets | Hugging Face's Diffusers | Data Mining| Data Science|Audio Signal Processing | Image Processing | GANs | Object Detection | Java |Linux | Git | C++ | C | SQL | MS | Apache Spark | Seaborn| Power BI |Latex | MATLAB | Advanced Maths| Open API | Big Data Processing| Quality Testing | Amazon Web Services | Data Visualization | Pattern Recognition| H.264, HEVC, AV1

Language Skills: **English** Native Level C2 Proficiency Level **Hindi** Native Level **Japanese** Intermediate (N4 Level)

Education

M.Sc. Machine Learning for Visual Data Analytics(Vision) — Queen Mary University of London, London — Sep 2022 - Sep 2023
Grade: Distinction (Top 10% of the class)

B. Tech Electrical Engineering — National Institute of Technology, Jaipur — Jul 2017 - Aug 2021

Work Experience & Projects

AI Drug Discovery Intern at Hummingbird Bioscience — Jul 2024 - Present

Developed novel models using LSTMs, CNNs, and Transformer models to predict and create new and unseen drugs with high affinities.

Also worked on diffusion models to create new amino acid sequences with high affinity to help discover new state-of-the-art drugs to cure cancer.

Yori /JS Holdings Group, London — Dec 2023 — Apr 2024
Data Analyst

Enhanced sales forecasting at a London restaurant chain using **Facebook Prophet** and **ARIMA models**. Improved reliability in sales, labor costs, and stock planning, slashing costs by 40%.

Sibylline Advisory, London — Dec 2023 — Mar 2024
Computer Vision Consultant (Contract)

Engineered a robust disease classification mode and object detection via **AWS Rekognition** and SageMaker in **PyTorch**, enhancing crop quality analysis with over 95% accuracy, and significantly improving decision-making for agricultural stakeholders Utilized deep learning frameworks to optimize video analysis and compression tasks.—Other projects involved using ViTs, Object Detection Techniques, Segmentation Maps etc.

Dissertation Project: Novel Fashion Garment Generation using Sketch Guided Latent Diffusion Models — Sept 2022 — Aug 2023

Developed a novel stable diffusion pipeline for generating high-quality fashion garments from sketches. Surpassed state-of-the-art stable diffusion benchmark quantitatively and qualitatively by 80% qualitatively based on subjective study. Available here.
