Saksham Malhotra

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Data Scientist with 5+ years of experience building large-scale forecasting, optimization, and machine learning systems in production.

Experience

PriceLabs Jan 2025 – Present
Senior Data Scientist *Remote*

- Developing a market-demand forecasting model for 500k+ short-term rental properties, integrating pricing, booking, and event signals to drive demand-elasticity-based revenue optimization.
- Designed and deployed a dynamic pricing pipeline for 25k mid-term rental properties.
- Built a compliance-aware pricing framework for properties affected by Los Angeles fire regulations.
- Mentoring a Data Scientist on the forecasting framework, including ongoing maintenance and improvements.

PriceLabs March 2024 – Dec 2024
Data Scientist *Remote*

- Optimized forecasting pipelines through vectorization, reducing runtime by 60%.
- Built an experimentation framework to evaluate pricing algorithm changes across 500k+ properties.
- Led LLM-based real-time event detection, including prompt design and evaluation to identify novel market events.

Elucidata June 2018 – June 2021
Data Scientist *New Delhi, India*

- Applied statistical analysis (differential gene expression, dimensionality reduction, clustering) on large-scale RNA-seq datasets to support research labs and therapeutic companies in disease mechanism and drug target discovery.
- Built an NLP-based ML pipeline classifying control vs. perturbation samples using metadata from 90k+ GEO samples, enabling cross-dataset differential gene discovery.
- Developed Python/R data pipelines transforming public RNA-seq repositories into 100k+ FAIR-compliant ML-ready datasets for the Polly platform; packaged pipelines with Docker for AWS EC2 deployment.
- Built a parallelized Python pipeline for single-cell BAM processing and automated RNA count report generation.

Education

Master of Science, Applied Mathematics Oct 2021 – Oct 2023
Technical University of Munich *Munich, Germany*

- Relevant coursework: Probability theory, Non-linear optimization, Machine learning, Introduction to deep learning, Deep generative models, Computer vision, Case studies in scientific computing.
- Thesis– Fast Eigensolvers for Koopman Operator Approximation: Developing an eigensolver algorithm that utilises the algebraic structure of Koopman eigenfunctions.

Bachelor of Engineering, Electronics and Communication April 2014 – April 2018
Maharaja Surajmal Institute of Technology, GGSIPU *New Delhi, India*

Projects

Optimal race line for autonomous race car: Solved an optimal control problem for autonomous racing path planning using IPOPT.

Training ML models: Trained CNNs, VAEs, and diffusion models in PyTorch for generative and vision tasks.

cmapPy: Open-source contributor to a Python package for parsing GCT biological data files.

Blog: Mathematics blog with articles on probability, optimization, and applied ML.

Technical Skills

Programming: Python, R, Javascript, C++, Matlab, Git, Docker, SQL

ML/DS frameworks: Pytorch, Tensorflow, Scikit-learn

Data/Scientific Computing: Numpy, Pandas, Polars