

Harikesh Kushwaha

[LinkedIn](#) | [Portfolio](#) | [GitHub](#) | [Kaggle](#)

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DATA SCIENTIST

As a recent graduate with a strong foundation in **statistics**, data science and **finance**. I have worked on several personal projects which have honed my skills as a data scientist and **analytics**. With a passion for solving complex problems and a drive to constantly learn and improve, I am excited to take on new challenges in this position.

TECHNICAL SKILLS

Languages	: Python (Proficient), SQL, MATLAB, C++
Frameworks	: Scikit-learn, TensorFlow, Keras, Django, Streamlit
Libraries	: matplotlib, pandas, NumPy, Seaborn, BeautifulSoup, Selenium, OpenCV, Statsmodels
Databases	: MySQL, MongoDB
Dev Tools	: VS Code, Tableau, Git, GitHub, Jupyter Notebook, Anaconda, AWS, S3, Unix/Linux
Soft Skills	: Analytical and Problem-Solving Skills, Good Presentation Skills, Communication skills

EDUCATION

Indian Institute of Technology Delhi <i>Master of Science in Physics, (8.6 GPA)</i>	New Delhi, India <i>July 2021 – May 2023</i>
Banaras Hindu University <i>Bachelor of Science in Physics, (8.4 GPA)</i>	Varanasi, Uttar Pradesh India <i>July 2018 – May 2021</i>

EXPERIENCE

Junior Data Scientist <i>Nuvoretail Enlytical Technology Private Limited</i>	June 2023 – Present <i>New Delhi</i>
<ul style="list-style-type: none">Automated Amazon Bidding with Python: Developed Python scripts to automate Amazon Marketing Services bidding, resulting in a 50% reduction in manual intervention and a 20% increase in performance.Enhanced Log Tracking and Issue Identification with Airflow Scheduling: Leveraged Airflow DAGs for streamlined log management and rapid task issue identification, enhancing process reliability.Improved Bidding Accuracy with Machine Learning: Developed machine learning models and statistical algorithms to predict the optimal bid for a product resulting in cost-effective advertisement.Custom Flask Server Development: Designed and implemented a Flask server to facilitate team interaction and empower seamless data modification within the system.	

PROJECTS

pystock	<i>Python, portfolio theory, finance, pytest</i>	Source Code
<ul style="list-style-type: none">Developed pystock, a comprehensive Python library for portfolio optimization and management. Utilizing object-oriented programming, created a user-friendly API capable of optimizing portfolios with any number of securities.The library includes various models, such as the Capital Asset Pricing Model, Single Index Model, Fama-French three- and five-factor models, and has a suite of over 100 unit tests written with pytest and fixtures, spanning more than 1500 lines of code.This library shows my ability to design and implement a complex project from scratch, and develop, test and document a Python package.		
optionalyzer	<i>Python, options, futures, plotly, BS model</i>	Source Code
<ul style="list-style-type: none">Developed optionalyzer, a powerful Python library for Options Strategy Builder that makes it easy to create custom options trading strategies.Implemented the Black-Scholes Model to accurately calculate Option prices and utilized optimization techniques to find the implied volatility of the Option, enabling users to make better trading decisions.		

- Leveraged **Plotly** to create an **interactive Options payoff diagram** for any date, allowing users to explore potential outcomes for different combinations of Options.

frontier

Python, portfolio theory, pytest

[Source Code](#)

- Developed **frontier**, a Python module for **plotting the efficient frontier** of a portfolio with an arbitrary number of securities.
- Utilizes **Monte Carlo simulations** to create an **interactive efficient frontier**, enabling users to easily explore different portfolios and their expected returns and risks.

Digit Recognizer

Python, TensorFlow, Keras, Kaggle

[Source Code](#)

- Developed a very deep **convolutional neural network** using TensorFlow and Keras with **dropout** and **batch normalization** to improve performance.
- Achieved an accuracy of **99.48%** on the test set, securing a place in the **top 15%** on the Kaggle leaderboard.
- Deployed the app on **HuggingFace** using **Streamlit** and made it available to the public. Find the app [here](#).

CERTIFICATIONS

- Machine Learning Specialization (DeepLearning.AI) [Certificate](#)
- Financial Markets (Yale University) [Certificate](#)
- Simulation Models for Decision Making (University of Minnesota) [Certificate](#)