Harikesh Kushwaha

LinkedIn | Portfolio | GitHub | Kaggle

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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　　　　　　　　　　　　　　　　　　　New Delhi, India
Master of Science in Physics, (8.6 GPA)　　　　　　　　　　　　　　　　　　*July 2021 – May 2023*

Banaras Hindu University　　　　　　　　　　　　　　　　　　Varanasi, Uttar Pradesh India
Bachelor of Science in Physics, (8.4 GPA)　　　　　　　　　　　　　　　　　*July 2018 – May 2021*

EXPERIENCE

Junior Data Scientist　　　　　　　　　　　　　　　　　　　　　　　　June 2023 – Present
Nuvoretail Enlytical Technology Private Limited　　　　　　　　　　　　　　　　　　*New Delhi*

- **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　　　　　　　*Python, portfolio theory, finance, pytest*　　　　　　　Source Code

- 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 develope, test and document a **Python package**.

optionalyzer　　　　　*Python, options, futures, plotly, BS model*　　　　　Source Code

- 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.

CERTIFICATIONS

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