Shlok Thakkar

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EDUCATION

University Of Illinois Urbana Champaign — Champaign, IL
Bachelor of Science in Information Science + Data Science, Minor in Computer Science — *GPA : 4.0*

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (MySQL), JavaScript, NodeJS, HTML/CSS, R, ReactJS
Frameworks: React, Node.js, Flask,, WordPress, MongoDB, FullCalendar API, Nessie API,
Developer Tools: Git, Docker, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse
Libraries: pandas, NumPy, Matplotlib, Streamlit, scikit-learn, TensorFlow, OpenCV, PyTorch, Streamlit

EXPERIENCE

Software Development Intern — June 2022 – August 2022
MultiQOS — *Ahmedabad, India*
* Developed and deployed a scalable recommendation system for a grocery retail business using **Node.js**, **Java**, and **MySQL**, leveraging customer purchase data to personalize product suggestions and enhance user engagement by 44%.
* Improved operational efficiency and customer retention by implementing intelligent filtering algorithms and backend integration, resulting in a more dynamic and data-driven shopping experience.

Machine Learning Lead Dev — Jan. 2025 – Present
Storm Drones @ UIUC — *Champaign, IL*
* Developed predictive models to estimate drone battery life using machine learning techniques, improving operational forecasting.
* Achieved **98% accuracy**, enabling precise battery monitoring and enhancing flight reliability and safety.

Co-founder @ Minti — Feb 2025 – Present
Minti — *Champaign, IL*
* Developed "Minti," an AI-powered budgeting app that connects to users' bank accounts and calendars, integrating bank APIs to analyze expenses and provide weekly, adaptive budget plans.
* Engineered the full-stack solution using NodeJS, React, JavaScript, Python, and OpenAI to deliver real-time financial insights and seamless calendar-based planning.

PROJECTS

Black-Scholes Pricer | *Python, Streamlit, TailwindCSS, Docker* — March 2025 – Present
* Designed and implemented a robust Black-Scholes options pricer in Python, accurately computing theoretical prices and key option Greeks (Delta, Gamma, Theta, Vega, and Rho) to support quantitative risk management and optimized hedging strategies.
* Engineered an interactive Streamlit application that visualizes sensitivity analyses for options trading, leveraging Python, NumPy, Pandas, and Matplotlib to deliver real-time quantitative insights for enhanced trading decision-making.

Quant Apogee | *Python, NumPy, SciPy, Plotly Dash, Git* — Jan 2025 – Present
* Developed an algorithmic trading backtesting engine that implements statistical arbitrage strategies and Monte Carlo simulations to evaluate risk-adjusted performance metrics (such as Sharpe Ratio and VaR) using historical market data.
* Built the platform using Python with Pandas, NumPy, and SciPy for quantitative analysis, Plotly Dash for interactive visualizations, and Docker for seamless deployment and reproducibility.