DHIREN RAWAL

www.linkedin.com/in/dhirenrawal9

San Diego, California | (858) 214-0637 | dhiren.rawal2001@gmail.com

EDUCATION

Master of Quantitative Finance, Rady School of Management, University of California, San Diego, CA 12/2025

- Relevant Courses: Derivatives & Structured Products, Advanced Risk Management, Fixed Income, Econometrics
- Focus**:** Quantitative systems, Data-driven decision-making, and Market mechanics

Bachelor of Commerce 04/2022

KJ Somaiya College of Science and Commerce, Mumbai, India

- Relevant Courses: Financial Accounting, Business Economics, Cost Accounts, Management Accounts

PROJECTS

Real-Time Equity Options Volatility Surface Calibration & Monitoring, Independent Project 09/2025

- Built and monitored multi-maturity implied volatility surfaces with automated data validation, consistency checks, and failure diagnostics, designed to prevent downstream pricing, booking, and risk errors caused by corrupted or illiquid market data.
- Developed automated diagnostics to flag noisy or broken market inputs (illiquid strikes, skew dislocations, surface residual spikes) and stress-tested surfaces under spot, volatility, and earnings shocks to assess pricing robustness and trader quote impact.

Market Making and Execution Simulation, Independent Project 11/2025

- Built a market-making simulator which models limit order book, execution-driven PnL, and inventory risk; implemented inventory-aware bid/ask quoting with soft and hard risk limits.dd
- Identified and corrected a flawed execution model producing artificial zero-variance PnL; decomposed PnL into spread and inventory components to validate drawdowns and robustness.

Derivatives Pricing and Sensitivity Analysis, Independent Project 12/2025

- Designed and built a Python and SQL system, simulating the full trade lifecycle from execution through settlement, injecting realistic failure modes (partial fills, late confirmations, corrupted records) to stress-test operational workflows.
- Implemented automated reconciliation checks across front, middle, and back-office books to detect breaks, classify severity, and reduce time-to-detection of operational risk under high-volume conditions.

EXPERIENCE

Operations and Finance Manager, Mahalaxmi Enterprises, Thane, India 11/2023 - 08/2024

- Improved liquidity forecasting accuracy by 10% by analyzing cash-flow patterns and variance shocks, enabling more reliable decisions under time pressure.
- Identified recurring error patterns in high-volume transactional data, implemented control checks and review workflows that reduced processing delays and prevented downstream reconciliation issues during peak activity periods.

Investment Banking Intern, StartupLanes, Goa, India 05/2023 - 11/2023

- Evaluated valuation sensitivity to key assumptions and downside scenarios by focusing on model instability under adverse conditions.
- Consolidated assumptions, sensitivities, and drivers into a unified model, increasing cross-team decision speed by 30% and reducing misinterpretation risk.

Operations Analyst, Mahalaxmi Enterprises, Thane, India 06/2022 - 05/2023

- Increased delivery efficiency from 82% to 93% by segmenting products statistically that improved execution speed.
- Cut fulfillment cycle time from 18–25% by isolating high-impact inefficiencies in noisy operational data.

SPECIALIZED SKILLS

- **Technical & Financial skills:** Python (data pipelines, validation checks, simulations, automation), SQL (joins, aggregations, reconciliation queries, anomaly detection), Advanced Excel, Time-Series Analysis, Market Microstructure concepts