

Shantanu Humbe

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EDUCATION

National Institute of Technology, Warangal

2019 – 2023

B.Tech in Computer Science

CFA Institute

2025

Chartered Financial Analyst — Passed Level I

EXPERIENCE

Goldman Sachs

Bengaluru, India

Associate, Prime Services Risk Technology

Jul 2023 – Present

- Part of the Intraday Risk team building systems that enable real-time monitoring and management of prime-brokerage client exposures.
- Developed and optimized C++ engines for PnL and risk-factor computation across equities, FX Forwards, NDFs, proxy products and bonds.
- Enabled pricing and integration for proxy products and upstream bond trades, improving intraday valuation coverage.
- Integrated extended-trading-hours pricing into risk systems, ensuring PnL and exposure metrics reflect overnight and ET session moves.
- Integrated and standardized upstream market-data feeds and trade sourcing from multiple Order Management Systems (OMS), ensuring consistent valuation inputs.
- Built proxy-server integrations and removed legacy monproc dependencies from DRA servers to simplify UI routing and improve stability.
- Designed and deployed a new React-based UI on Kubernetes with GitLab CI/CD pipelines, and supported backend services for company dashboards.
- Created a utility analytics dashboard for the PnL calculator to surface diagnostic metrics and support troubleshooting & performance analysis.
- Led EMS client migration for trade feeds to CredVault, ensuring secure, reliable pipelines and operational ownership.
- Automated repetitive operational workflows using Python, saving 20 hours/week and lowering error rates.
- Migrated and refactored 200+ Autosys jobs to RHEL infrastructure, improving stability and reducing failures by 30%.

Goldman Sachs

Bengaluru, India

Summer Analyst, IRP Strats

May 2022 – Jul 2022

- Developed and calibrated pricing models for interest rate derivatives following market conventions.
- Validated theoretical pricing models against production results, improving consistency and robustness of valuation libraries.

TECHNICAL & QUANTITATIVE SKILLS

Programming: C++, Python (NumPy, Pandas, PyTorch, Streamlit), SQL, React, Bash

Systems & Tools: Kubernetes, Docker, Autosys, GitLab CI/CD, Linux (RHEL), CredVault

Quantitative Finance: Option pricing (Black-Scholes, Binomial, Monte Carlo), Greeks, Risk-neutral valuation

Machine Learning: Regression, PCA, Neural Networks, Reinforcement Learning (basic)

PROJECTS

Option Pricing and Risk Analysis Tool | *Python, Streamlit, NumPy/Pandas*

- Implemented European option pricing using Black-Scholes, Binomial Tree, and Monte Carlo methods; computed Greeks (Delta, Gamma, Vega, Theta, Rho) for sensitivity and hedging analysis.
- Applied finite-difference PDE methods to price path-dependent derivatives and benchmarked accuracy against closed-form solutions.
- Deployed an interactive Streamlit app for real-time pricing and risk visualization (Live Demo).

VisualKgNet | *Python, PyTorch, ConceptNet*

- Developed a multimodal deep learning model combining BERT and ResNet for visual question answering tasks.
- Integrated ConceptNet knowledge graphs to enhance image-text semantic understanding.
- Fine-tuned on the VQA dataset, achieving competitive performance with state-of-the-art baselines.

ACHIEVEMENTS

Merit Scholarship Holder (2019–20)

JEE Mains Rank: AIR 2832 (Top 0.3%)

Competitive Programming: LeetCode Rating 2005, CodeChef Rating 1750