Tushar Rao, Sr Quantitative Developer

Mumbai, 9930689793, tusharnrao@gmail.com

PROFILE	Results-driven Sr Quantitative Developer with a proven track record of designing and implementing robust trading infrastructure for quantitative strategies. Proficient in setting up data pipelines, architecting databases, and creating APIs to enable researchers and analysts to execute trading signals. Comprehensive documentation at every stage of development to ensure transparency, compliance, and efficient collaboration. Committed to delivering solutions that drive profitability and enhance operational efficiency in the organization.

SKILLS

Python	GitHub
PostgreSQL	Web3
FastAPI	AWS
Pydantic	Tableau
SQLAlchemy	Apache Airflow
Redis	Financial Technology (FinTech)
Docker	

EMPLOYMENT HISTORY

Aug 2021 — Present

Sr Quantitative Developer, Hillroute Capital. Crypto Quant Hedge Fund
Delhi

- As a pivotal team member, I played a key role in architecting and establishing the core foundation of our business operations, data infrastructure, and technology systems. I led the way in developing a powerful execution engine for a leading crypto exchange, which resulted in achieving seamless and high-performance trading operations.
- Successfully integrated three centralized crypto exchanges (FTX, Binance, OKX) with trading and data pipelines for three-month timeframes.
- Significantly improved order execution system, reducing order latency by 70% that significantly reduced time and price slippage.
- Architected Airflow service for efficient data pipeline construction and strategy workflow orchestration, reducing data availability lag from 1 day to 5 minutes.
- Single handedly built a versatile REST API to enable creation of a language-agnostic platform to foster cross-functional collaboration between strategy and tech teams.
- Developed a real-time notification service as a part of the risk management systems, monitoring exchange wallets, and implemented a one-click liquidation system for extreme risk events.
- Extensive experience with smart contracts using Infura and web3.py, focused on accounting and tracking exchange wallets to monitor and manage liquidity effectively.

Jul 2018 — Aug 2021

Platform Planning and Design Engineer, Tata Communications Ltd.
Mumbai, India

- Automated daily processing of 3,700 routing tables, using Python packages for rapid geo-location analysis, delivering essential insights to aid product managers in assessing regional network performance.
- Created a versatile framework for analyzing factors influencing Tata's internet backbone and Last-Mile connections, enabling efficient mapping of cross-functional team data to determine associated backbone costs.
- Successfully executed a POC for deploying OpenBMP on AWS to monitor the Tata internet backbone, architecting the necessary configurations and resource allocation for high-load support, while actively contributing to the development of this emerging BGP monitoring framework on the Gitter platform.
- Oversaw daily traffic analysis and reporting for top clients Google and Facebook at Tata Communications, identifying churn risks and revenue opportunities across content and eyeball networks.

EDUCATION

May 2014 — May 2018

Bachelors in Computers, University of Mumbai
Mumbai, India