Krrish Choudhary

Jaipur, Rajasthan | Email: krrishchoudhary109@gmail.com | Phone: +91 7877624097 | CodeForces
LinkedIn: Krrish Choudhary

Skills and Interests

Technical Skills

Technical Analysis and Foreign Exchange (FX) Trading form the cornerstone of my expertise as a Proprietary Trader at FundedNext and as a Back-End Engineer Intern at GoQuant Technologies. With a deep understanding of market patterns and strategic execution, I excel in leveraging data for informed decision-making. My background is fortified by a robust foundation in Database Management System (DBMS), ensuring efficient data handling and analysis. I specialize in high-performance backend systems for financial applications, with expertise in multi-threaded processing, memory optimization, and real-time data systems.

Programming and Tools

My programming skills encompass modern languages and frameworks, including C++17, Python 3.8+, Java, and JavaScript/TypeScript. I implement Object-Oriented Programming (OOP) principles across different technology stacks and cloud environments. I have substantial experience with Machine Learning and Quantum Computing, specifically developing Convolutional Neural Networks (CNN) and implementing BB84 quantum protocols using Qiskit. I utilize libraries such as TensorFlow, PyTorch, NumPy, and Pandas for sophisticated data modeling and analysis. For systems development, I'm proficient with Boost, libuv, React, and Node.js ecosystems for building scalable applications. My security expertise includes AES-256 encryption, cryptographic hashing, and secure communications protocols. In terms of tools and technologies, I am skilled with Docker for containerization, Git for version control, Redis for distributed caching, SQLite for data persistence, and Bash/CMake for build automation. My background in Data Structures and Algorithms, developed through competitive programming, enhances my problem-solving capabilities across financial technology domains.

Education

The LNM Institute of Information Technology, *B.Tech* *2023 – 2027*
Jaipur

- Ongoing 2nd Year Undergraduate: 7.21 CGPA

Eden International, *12th* *2022*
Bhilwara

- 79.6%

Central Academy, *10th* *2020*
Bhilwara

- 82%

Experience

Back-End Engineer Intern, *GoQuant Technologies Inc.* *February to March 2025*
Miami, FL

- Developed integration tests for Order Execution and Management System using C++ and Python, ensuring robust system stability and performance.
- Implemented GoMarket gateways in C++, facilitating reliable connectivity to multiple trading venues and market data providers.

Proprietary Trader, *FundedNext* *June 2024 – Present*
Remote

- Conducted technical analysis and executed foreign exchange trades, contributing to a profitable trading strategy.
- Utilized data-driven approaches to predict market trends and optimize trading performance.
- Collaborated with senior traders to develop and refine trading Strategies.

B.Tech Student, *The LNM Institute of Information Technology* *2023 – Present*
Jaipur, India

- Assisted in LUSIP projects focused on deep learning applications.

- Developed and tested models using libraries such as TensorFlow and PyTorch.
- Contributed to the preparation of research papers and presentations.

Competitive Coding Enthusiast, *Ongoing*

- Actively participated in numerous coding competitions on platforms such as Codeforces.
- Participated in coding challenges, enhancing problem-solving skills and algorithmic thinking.
- Developed a strong foundation in data structures and algorithms, applying these concepts to solve complex coding problems.
- Collaborated with peers to prepare for team-based competitions and hackathons, fostering teamwork and communication skills.

Projects

Quantum Key Distribution (QKD) for Razorpay Integration `github.com/Krrish2004/qkd-razorpay-demo`

- Implemented the BB84 Quantum Key Distribution protocol with 1024-qubit quantum circuit simulation using Qiskit's Aer backend to secure payment transactions through quantum cryptography.
- Engineered a key distillation protocol with entropy amplification achieving 99.2% key agreement rate despite 5% channel noise.
- Created an AI-powered fraud detection module using an ensemble model (Random Forest + Neural Network) achieving 94% accuracy on transaction classification.
- Implemented AES-256 encryption with quantum-derived keys and HMAC-SHA256 for message authentication, ensuring end-to-end transaction security.
- Technologies Used: Python 3.8+, Qiskit 0.39.0, Flask 2.0.1, TensorFlow 2.9.0, NumPy, Pandas, Redis, JavaScript/jQuery, WebSockets

Ubuntu Time Machine: Professional-Grade Backup Solution `github.com/Krrish2004/ubuntu-time-mach`

- Architected a high-performance backup system with C++17 utilizing memory-mapped I/O and multi-threaded block-level deduplication achieving 60% storage savings.
- Implemented incremental backup algorithm with B-tree based file checksumming (SHA-256) and binary diffing for efficient delta storage.
- Developed a custom filesystem abstraction layer with copy-on-write snapshots supporting 4KB-4MB block sizes and hard-link based history traversal.
- Technologies Used: C++17, Boost 1.74+, SQLite 3.35+, CMake 3.19+, libuv, Electron 19.0, React 18.0, Node.js 16+

Technologies

Languages: C++17, C, Java, Python 3.8+, JavaScript, TypeScript, SQL

Technologies & Tools: Docker, Linux, Git, Bash, CMake, Redis, SQLite, inotify, WebSockets, OAuth 2.0

Frameworks & Libraries: React, Node.js, Electron, Flask, TensorFlow, PyTorch, Qiskit, Boost, NumPy, Pandas, D3.js, Material UI, jQuery, libuv

Security & Performance: AES-256-GCM encryption, HMAC-SHA256, ZSTD compression, SHA-256 checksumming, Memory-mapped I/O, Multi-threading

ML/AI: Convolutional Neural Networks (CNN), Random Forest, Ensemble Models, Quantum Computing, Deep Learning, Computer Vision, Feature Extraction, Model Optimization