

# ABHISHEAK MALL

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## ABOUT ME

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**Technical Skills** C++, Python, Golang, Unix/Linux, Typescript, AWS, Docker, K8s  
**Languages** Fluent in English and Nepali; Conversational Proficiency in Hindi  
**Interests** Blockchain Technology, High-Performance Computing, Automated Trading

## WORK EXPERIENCE

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### Aris Capital Group

Lead Software Engineer

Hong Kong, China (09/2018 - 12/2021)

- Designed and developed trading systems for cryptocurrency and FX products trading delta-netural and arbitrage strategies in Python and C++
- Collaborated with an external team to design develop data collection pipelines using Kafka and AWS S3 for tick-data collection from multiple exchanges
- Refactored trade monitoring scripts in asynchronous Typescript to reduce CPU usage by over 60%
- Implemented a machine-learning-based trading system using Catboost and Pytorch capable of online-learning
- Developed services to trade and farm on UniswapV2 based exchanges using Typescript and Web3.js

### Squared-S Artificial Intelligence

Data Science Intern

Hong Kong, China (06/2018 - 09/2018)

- Implemented a dashboard in Python for visualising prices of various financial products with respect to global news and trends
- Integrated Natual Languauge Processing APIs from IBM Watson and Google Cloud Platform for sentiment analysis on news headlines and tweets

## PERSONAL PROJECTS

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### DeFi MEV Bot

- Designed and developed low-latency trading infrastructure in Golang to capture price arbitrages and liquidations on EVM-based chains
- Deployed production services using AWS EKS
- Implemented system and log monitoring service with DataDog

### CCAPI

- An open-source header-only C++14 Library for obtaining market data and executing trades from multiple cryptocurrency exchanges
- Implemented REST and Websocket connections to FTX and OKEx
- Contributed unit tests for the two exchanges listed above

## RESEARCH

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### The Hong Kong University of Science and Technology

Research Assistant

Hong Kong, China (Summer 2018)

- Researched applications of knowledge graphs within the financial space
- Wrote queries in SPARQL to fetch inter-company relationship data from WikiData
- Implemented a dashboard in Python to visualise networks of relationships between publicly traded companies in the U.S.

## EDUCATION

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### The Hong Kong University of Science and Technology

Bachelors of Engineering in Computer Science

Hong Kong, China (09/2016 - 06/2020)

- Specialization in Artificial Intelligence and Software Engineering
- University Scholarship
- Research Assistant