

# Chongdan Pan

pandapcd@umich.edu • 734-934-4277 • Ann Arbor, MI  
www.linkedin.com/in/pcdpanda/

## EDUCATION

### University of Michigan

Ann Arbor, MI

*Master of Science in Information (GPA: 4/4)*

*Apr 2023*

Topics: NLP, Data Mining, Time Series Analysis, Database, Data Visualization, Web Application

### University of Michigan - Shanghai Jiao Tong University Joint Institute

Shanghai, China

*Bachelor of Science in Electrical and Computer Engineering; Minor in Entrepreneurship*

*Aug 2020*

Topics: Computer System, Network, Algorithm, Machine Learning, Convex Optimization

## SKILLS

**Programming:** C/C++, Python, R, Shell, SQL, JavaScript, Scala, Solidity, Rust, HTML/CSS

**Database:** MySQL, Redis, ClickHouse, MongoDB, Firebase

**Tools:** Git, Jenkins, Docker

**Framework/Library:** Hadoop, Spark, Alluxio, Kafka, Pytorch, Django, Altair, React-Native

## EMPLOYMENT EXPERIENCE

### Jump Trading

Chicago, Illinois

Software Engineer Intern

*June 2022 - Aug 2022*

- Applied concurrent and asynchronous programming to improve the performance of data fetching API.
- Designed user-friendly and high performance API to get global markets' bar data.
- Developed multidimensional data manipulation tools for quant researchers.

### Probquant Investment

Shanghai, China

Full-time Software Engineer

*Aug 2020 - Aug 2021*

- Designed a high-performance asynchronous trading logger through a lockfree queue and multithreading.
- Used Protobuf, message queues to develop a real-time data exchange system between colocated servers.
- Built the company-wide data warehouse from scratch, enabling quantitative researchers to fetch and save high-frequency trading data with throughput higher than 10GB/s.
- Utilized shared memory to build a stand-alone in-memory key-value database customized for large data matrix, providing 10x higher performance than Redis.

## PROJECT EXPERIENCE

### Relic NFT

*May 2022 - present*

- Working with UMich to provide NFT tickets for the match associated with the university sports team.
- Used Hardhat, Solidity and Javascript to develop an NFT marketplace supported for trades and standard functions for ERC-721 tokens.
- Set up and maintained a forked Ethereum blockchain in our virtual environment to test and run the Dapp.

### Crypto Quantitative Research

*May 2021 - present*

- Used Word2Vec and LSTM on tweets data to generate meaningful predictors for crypto trading strategies.
- Built a data pipeline to fetch, clean, normalize and store median-frequency blockchain market and text data from Binance and Twitter Rest API.
- Applied Garch-AR, Bretó Stochastic model to analyze the volatility of crypto market time series data.

### Blockchain-based Peer Review System

*Feb 2022 - April 2022*

- Designed and developed a DApp to record transaction history and patient review in healthcare system
- Led an interdisciplinary team and got into the finalist of UM Crypto Fintech Challenge.
- Use Solidity to design the smart contracts supporting user interaction and historical data search.

### President of SJTU VEX Robot Club

*Sep 2019 - Aug 2020*

- Led an 8-member team to win World Champion in the 2019 VEX World Championship.
- Implemented control algorithm and signal processing system upon multiple sensors so that the absolute error of 100-liter robots's movement is under 1cm, and the relative error of velocity is under 2%.
- Used mechanic designing and fabrication techniques to elaborate more than 20 robots for 3 seasons.
- Founded a club of over 40 members and instructed them to participate in the VEX Robotic Competitions.