

# Muyao (Jerry) Kong

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## EDUCATION

### New York University

*Major in Computer Science*

*Minor in Mathematics*

**Honors:** Dean's List

**Relevant Coursework:** Basic Algorithm, Natural Language Processing, Linear Algebra, Data Structures, Discrete Math, Statistics, Operating System, Agile Software Development and DevOps, Object Oriented Programming, Computer System Organization, Math for Econ I and II

New York, NY

Expected May 2027

### High School Attached to Shandong Normal University

GPA: 4.01 Ranking: 5%

Jinan, China

Graduated June 2023

## TECHNICAL SKILLS

**Programming Languages:** Proficient - Python, Java, C++, JavaScript, Familiar - C, Assembly Language

**Markup Languages:** Proficient - LaTeX, HTML, CSS

**Database Management Systems:** Familiar - MongoDB, MySQL

**Frameworks:** Proficient - [React.js](#), [Express.js](#), Flask, Familiar - Tailwind CSS

**Other Libraries:** Proficient - Pandas, NumPy, yFinance, Familiar - PyMySQL, Statsmodel, Matplotlib

## WORK EXPERIENCE

### National Supercomputing Center

Algorithm and Data Analyst Intern

Jinan, China

Jun 2024 - Aug 2024

- **Cleaned** time series device data; constructed data anomaly detection and localization algorithms to locate and process abnormal data data using **Huber Regressor** in **robust regression**.
- Built **ICC (Intraclass Correlation)** data consistency check algorithms, made judgment of consistency on the historical data of multiple related devices.
- Built machine learning **ARIMA** (Autoregressive Integrated Moving Average) model, used the constructed ARIMA model to forecast the **time series** device data.
- Wrote Python automation script for timed processing of device data, handled timed database read/write using **PyMySQL**, and processed the retrieved device data from MySQL database.

### China Cinda Asset Management Co., Ltd

Beijing

Risk Management Intern

Jun 2025 – Aug 2025

- Synthesized industry and internal case materials on **distressed asset resolution** (e.g., **debt-to-equity swaps, auctions, restructurings**) and distilled key risk factors into reusable briefings for internal reference.
- Compiled and standardized annual report data across 18 financial institutions including banks, AMCs and brokers, extracting and consolidating key financial and disclosure items into structured datasets for analysis.
- Performed basic **cross-company** and **time-series comparisons** (leverage, liquidity, profitability quality, impairments, contingencies) and drafted concise risk highlights to support internal documentation.
- Operated under strict data-access and compliance constraints, focusing on public disclosures and documentation workflows to improve traceability and retrieval efficiency.

### China Merchants Securities Co.

Jinan, China

Wealth Management Consultant Intern

Jul 2024 – Aug 2024

- Learned professional knowledge of business and finance (e.g., **brokerage business, capital intermediary business**) and professional concepts (e.g., **structured deposit, risk level**, etc.)
- Examined the operating principles of the securities market, investigated the management structure, service processes and operating models of securities companies.
- Deep-mined, organized, screened and analyzed public fund data based on **volatility, maximum retracement, Sharpe ratio, downside risk**, etc.

### TikTok

Remote

Self-employed Internet Influencer

Jan 2021 – Feb 2024

- Received **over 1.3 million likes**.

- Accumulated a maximum of almost **10,000 followers**.
- Posts have been viewed by **over 3000,0000 people**.

## RESEARCH & PROJECTS

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**TickerPicker: The AI-powered Stock Picker Application Based on Industry and Quantitative Metrics** (JavaScript, [React.js](#), [Express.js](#), Tailwind CSS, MongoDB)

Product Owner, Scrum Master and Developer

- Built a factor-based equity screener combining **fundamental** and **technical indicators** (e.g., P/E, EPS growth, MA crossovers, beta) sourced from **Yahoo Finance API**.
- Developed a Python-driven analytics engine for **real-time data retrieval** and **signal computation**.
- Designed and developed TickerPicker - interactive filter and visualizations for stocks based on fundamental and technical indicators.
- Designed and developed watchlist modules to monitor price momentum, earnings events, and portfolio-level performance.

**Event Planner Web Application** (Python, Flask, MongoDB)

Project Manager, Developer

- Built and deployed a **RESTful Event Planner API** with **Flask-RESTX** and **MongoDB (PyMongo)**, enabling users to create events and manage RSVPs via a documented, resource-oriented API surface.
- Implemented automated outbound notifications using **boto3** and **AWS Simple Email Service (SES)** with **environment-driven IAM configuration** for upcoming-event reminders
- Developed a testing strategy with **pytest** and **mongomock** to unit-test MongoDB-backed endpoints without external dependencies, producing coverage reports (HTML) for regression visibility.
- Leveraged **Flask-RESTX** auto-generated **OpenAPI Swagger** documentation, publishing an interactive API explorer at a production endpoint.

## OTHER SKILLS

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**Languages:** Chinese (Mandarin), English, Japanese, Arabic

**Interests:** Programming, Math, Economy, Languages, Piano