# **Patrick Yuen**

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#### **Technical Skills:**

**Programming Languages :** Python, Java

Data Storage Development: SQL(PostgresSQL, MySQL, SQLite, SQLAlchemy ORM), Avro, hdf5

**Data Analysis:** Jupyter, Pandas, Numpy

Performance: Asyncio, Multiprocessing, Cython, Numba, ZMQ

**Development Tools:** Docker, Bash, Windows, Ubuntu, Git, Jenkins CI, Sphinx

EDUCATION: New York University: Masters in Computer Science - June 2017 New York, NY

New York University: Computer Science Major - June 2016 New York, NY

**Economics/Mathematics minor** 

## **EXPERIENCE** Work Experience/Internship

## July'17 - Current Company: Akuna Capital

#### **Role: Junior Python Developer**

Chicago, IL

- o Developed a Python application to stream live risk metrics (greeks) during increasing market conditions. Achieved by improving formulas, multiprocessing and cythonizing core calculations.
- o Replaced/managed the firm's Compliance development team to develop new features/maintain the internal compliance dashboard and market activity surveillance system. Oversaw and implemented the monitoring necessary for the firm's APAC expansion into HK and Korea.
- Designed/implemented Python applications for the early stages of the Cryptocurrency desk. Included a system to connect to 12 different internet exchanges to periodically reconcile OTC trades + pnl and a flexible protocol/service for streaming various internet exchange's market/position information.
- o Refactored + expanded the firm's PnL workflow to leverage internal pricing/valuation libraries.
- o Improved intraday trade reconciliation to heuristically filter out automated trades.
- Maintained/Improved Trading Service applications/datasets, integrated CI and Middle Office reconciliation.

#### June'16 – August'16 Company: JP Morgan Chase & Co.

## **Role: Summer Technology Analyst**

Jersey City, NJ

- Developed an AngularJS webapp to provide User Admins CRUD operations over Wealth Management options.
- o Migrated multiple Jenkins jobs for continuous integration.

## June'15 - Fed'16 Company: Mizuho Capital Markets LLC

### **Role: Systems Development Intern**

New York, NY

- o Built an early stage Trade Surveillance Rule Engine for Compliance to detect market manipulation.
- o Developed an eFX reconciliation emailer and web app with Perl/ Perl CGI to help integrate a new eFX Trading Platform.
- o Created an FPML/XML Large Trade Reporting Tool as per CFTC regulations.

## June'14 - Aug'14 Company: Pershing LLC

#### **Role: Client Technology Services Intern**

Jersey City, NJ

- o Upgraded and debugged the Pershing Strategic Proposal System Application's Dojo from 1.7.3 to 1.9.1.2 to help resolve 78 open issues on the IPad.
- o Aided development of new automated build process to shorten load times from 22 sec to 0.5 sec.

#### Sept'13 - May'14 Company: NYU Stern IT

## **Role: Junior Web Developer**

New York, NY

o Managed, debugged and updated NYU Stern's websites and services.

#### Awards:

Best Technical Design JP Morgan Code for Good