

Jessica Zhang

Permanent Resident

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SUMMARY

Seeking a full-time software engineer position. Result-oriented professional with 6 years' experience in data engineering and product management with a strong interest in software development. Solid background in computer science and skilled at Java, Python, SQL, HTML/CSS, and JavaScript.

SKILLS

Languages: Java, Python (Pandas and NumPy), JavaScript, SQL, C, JSON, XML

Databases: SQL Server, MySQL, AWS EC2/S3, MongoDB, Neo4j, and Map/Reduce

Web Development: Java Servlet, React, HTML & CSS

Tools: Junit, Git, RESTful, Docker, Kubernetes, Jenkins, Bamboo, Bitbucket, Linux, Windows, UNIX

PROFESSIONAL EXPERIENCE

Point72 Asset Management, New York, US

Software Engineer / Analyst

Sep 2016 - Mar 2022

Automated Data Ingestion Framework

- Led a team of 3, designed and implemented a data pipeline and **ETL** framework end-to-end in **Python** to enable real-time financial data ingestion for systematic trading purpose.
- Designed and implemented a Data Warehouse backed by a relational database. Tuning **SQL** performance and query optimization by introducing views, constraints, partitioning, and indexing.
- Implemented an **SOS-based cron job scheduler** to automate shell script, database procedures, and executable file workflows.
- Designed and created a process framework for event logging and on-call troubleshooting, reduced incident discovery and mitigation time by 70%.
- Trained and led the whole team on adopting the new ETL framework and migrating from old processes. Improved the speed of dataset onboarding from 1,000+ vendors by 50%.

Financial Information eXchange (FIX) Protocol Framework

- Created a **FIX** protocol application in **Java** that manages network connections, creates and parses bi-directional stream of ordered messages used for electronic trading.
- Processed real-time FIX messages and loaded the data into **SQL** database. Developed monitoring alerts to detect and identify critical connectivity and messaging issues.
- Deployed to internal telemetry platform via **Docker** and **Kubernetes**.
- Increased efficiency and reduced operational risks and connectivity costs significantly.

PROJECTS

University of Pennsylvania

Jan 2021 - May 2021

F1 Car Racing Records Analytics and Visualization Application

- Built an interactive **web application** to search F1 car racing records and analytical results.
- Performed front-end **web UI design** and implementation using **HTML/CSS/React**.
- Implemented **RESTful APIs** using **Java servlets**.
- Developed a visualization dashboard using **ReactJS**. Deployed the service to **AWS EC2**.

EDUCATION

University of Pennsylvania, GPA: 3.83/4.0

Jan 2019 - May 2021

Master of Computer and Information Technology

Fordham University, GPA: 3.93/4.0

Aug 2014 - May 2015

Master of Science, Business Analytics

University of Maryland, College Park, GPA: 3.50/4.0

Aug 2009 - May 2014

Bachelor of Science, Dual-Degree, Finance & Accounting