

Paul Liu

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Github repository: PaulLiuEngineering

EDUCATION

University of Illinois Urbana Champaign

Champaign, IL

Bachelor of Science in Mechanical Engineering, Computer Science Minor

August 2017-May 2021

FULL-TIME POSITIONS

Capital One

Site Reliability Engineer(SRE, Senior Software Engineer)

New York, NY

SRE Automation Team - Bank Tech

AWS Failover Automation(Python, AWS)

- Built an enterprise platform that automated AWS Failover Process for over 600 AWS Accounts.
- Eliminated 100% of manual intervention for scheduled failover and disaster recovery.
- Reduced failover/disaster recovery time from a few hours to 15 min maximum.
- Standardized onboarding of AWS accounts to the enterprise platform to all AWS accounts in the enterprise.

Goldman Sachs

Software Engineer(Associate)

Salt Lake City, UT

July 2021- February 2025

Platform Team - Wealth Management

Client Communication Automation(Java, Spring Boot, React)

- Proposed and implemented a new onboarding process to display documents on goldman.com. Time to onboard a new workflow to display documents was reduced from 2-3 weeks to less than 1 hr.
- Designed and developed a UI for Operations teams for all regular letters sent to the client to onboard onto the platform, saving the engineering team 2-3 hours per week and reducing manual errors.
- Reduced business cost for client experience digital transformation by simplifying the onboarding process.

Platform Feature Enhancement(Java, Spring Boot, MongoDB, Kafka, VisualVM)

- Designed and built batch request feature that accommodates 100,000 requests to be accepted at the same time to meet business requirements that need high volumes of documents to be sent at once.
- Optimized 2 highly available, fault tolerant, client facing API's time performance by 95% on average, improved load time of the documents for the client, enhancing the client experience.
- Improved error handling process to reduce repeating, non-actionable alerts in production environment, reduce the alerts produced by an application by 75% without affecting its end users, saving engineering team 4-6 hours per week.

Swiss Infrastructure Development(Java, Spring Boot, Kafka)

- Designed and Built Swiss only infrastructure(firewall & application) essential to any swiss related business requirement that complies with swiss regulation for consumer identity data.
- Deployed large scale structures for swiss related requests that can handle up to sending out 200,000 documents per day.

Gitlab Build Process Optimization(Java, Gradle, Gitlab)

- Improved out build tool/build process, decreased build time by 33% for all applications.
- Upgraded Java/Spring version and decreased boilerplate code required for all testing units.

E signature automation(Java, Spring Boot, React, Kafka, MongoDB)

- Proposed and built an automated e-signature process for the client, digitized 95% of the trading paperwork and reduced time to close deals by 80%.
- Automated legal review process for trade documents, decreased cost for third party legal review by 90%.
- Onboarded new workflows to the communication platform, enabling clients to electronically sign account opening documents to shorten the client onboarding process from a few days to hours.

Migration automation(Python, React, Gitlab, AWS)

- Designed and automated manual migration process to eliminate human error and free up developer time up to 5 hours per week, helped our businesses deploy new e-sign processes to the production environment with minimal risk.

SKILLS

Skills: Java, Spring Boot, SQL, Python, MongoDB, React, GitLab, Github, AWS, Cloud, Jira, Cursor, KAFKA, HTML, JavaScript, CSS, C++, TensorFlow, Pygame, REST services applications, REST API, Django, Flask, VisualVM, Git, Version Control, Confluence, Microservices, Distributed Systems, Database, NoSQL, Object Oriented Programming, Linux, Shell, Agile

Language: English, Mandarin and Japanese

Certificate: AWS Cloud Certified Solutions Architect