

Xiaoteng Lyu

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EDUCATION

National University of Singapore
Bachelor of Computing (Computer Science)

Aug 2020 – Jan 2025
Singapore

EXPERIENCE

Lead Software Engineer, Infra / Product
SBI Digital Markets

Feb 2025 – Present
Singapore

- Led the end-to-end technical delivery of a **structured product** pricing platform built with **Spring Boot** and **React**, supporting high volume pricing workflows and used by institutional clients. Improved commercial pricing efficiency by 80%.
- Built and operated **AWS EKS** platform infrastructure with **Terraform**, **Helm**, and **ArgoCD**, supporting application deployment, database connectivity, and CI/CD automation across multiple environments.
- Improved **reliability** and engineering efficiency by standardizing infrastructure provisioning, CI/CD workflows, and operational monitoring with AWS CloudWatch.
- Managed 8+ **AWS Aurora PostgreSQL** instances, including backup and recovery, data migration, connectivity troubleshooting, and performance optimization.
- Troubleshoot and resolved production incidents across application, database, Kubernetes, and network layers, reducing service disruption and improving operational stability.
- Supported 10+ cloud-native applications across development and production environments, including **container orchestration**, **ingress routing**, **secret management**, and **secure connectivity**.
- Worked closely with engineering, security, compliance, and business stakeholders to turn business requirements into technical solutions, including API specifications and DB schema.
- Delivered technical support for blockchain-based product initiatives, including **tokenization** lifecycle, **smart contracts** operations, and **digital asset custody** integration.
- Worked with custody and blockchain vendors to support secure integration of crypto wallet infrastructure, transaction flows, and key management processes.

PROJECTS

PostgreSQL Proxy | *Go, PostgreSQL, Docker*

Mar 2026

- Implemented a lightweight TCP proxy that automatically routes SELECT queries to replica nodes and writes to the primary, with SQL inspection, round-robin load balancing, and health checks.
- Built transaction-aware routing logic, structured JSON logging, and admin HTTP endpoints for monitoring.
- Developed comprehensive test suite covering SQL parsing edge cases and transaction semantics

FLite# and FLite# playground | *Java, JavaScript, React, Node.js, Firebase*

Jan 2022 – Apr 2022

- Implemented FLite#, a subset of F# functional programming language, in Java, including core language parsing, interpretation logic, and units of measure feature.
- Built an online interpreter and playground using React, JavaScript, and Node.js for interactive code execution.
- Deployed and supported the web application using Firebase.

TECHNICAL SKILLS

Cloud & DevOps: Kubernetes (EKS), AWS (EKS, RDS, EC2, S3, IAM, VPC, Route53), Terraform, Helm, Docker, CI/CD pipelines, GitOps (ArgoCD)

Web & Networking: HTTP/HTTPS, Nginx, Load Balancers, VPC networking, WAF, DNS

Backend & Infrastructure: REST APIs, PostgreSQL, system reliability, containerized deployments

Blockchain: smart contract, ERC20, tokenization, crypto custody

Programming: Python, Go, Java (Spring Boot), JavaScript, C, SQL

Awards: 1st Prize, National Olympiad in Informatics 2018 (Jiangxi Province)