Tony Aizize

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Results-driven Software Engineering Manager & de facto Software Architect with 10+ years of experience building scalable payment infrastructure, crypto integrations, and fintech innovation. I've led 50+ bank, PSP, and stablecoin integrations, delivering resilient moneymovement systems that power cross-border transactions across APAC, EMEA, and the US.

With proven expertise in **event-driven microservices**, **secure wallet integrations**, and **cloud-native scaling**, I bridge deep technical architecture with business strategy—enabling high-performance platforms for the next wave of financial innovation. Passionate about **mentoring engineering teams**, **shaping technical culture**, and **driving adoption of blockchain and stablecoin-powered solutions**.

Technical Expertise

- Languages: Golang, PHP, Python, Perl, Java (spring boot, sprint), JavaScript
- · Architecture: Microservices, API Design, Event-Driven Systems, Distributed Ledgers, AWS Cloud
- Tech Stack: Docker, CI/CD, PostgreSQL, MySQL, MongoDB, Redis, Kafka, AWS SQS,
- Certifications: AWS Certified Solutions Architect (Associate), Certified Big Data Professional (NUS)
- Graduate Studies: Scalable Systems, Securing Ubiquitous Systems (NUS)

Leadership & Strategy

- Team Leadership: Managed & scaled teams of 10 engineers in Core Payments & FX
- Strategic Execution: Market expansion via stablecoin and fiat integrations
- Stakeholder Alignment: Translating crypto/fintech architectures into business impact
- Culture: Driving engineering best practices, performance management, and career growth

□ Mission-driven to build the next generation of crypto-native payment platforms, scale decentralized finance solutions, and deliver engineering excellence at global scale.

EDUCATION

Master's Degree in Software Engineering

Jan 2021 - Jan 2023

National University of Singapore

Architecting Software Solutions, Platform Engineering, DevOps Engineering, Cloud Native Solution Design, Big Data Engineering

Graduate Diploma in System Science

Jul 2015 - Nov 2016

Institute of System Science, NUS, Singapore

Bachelor Degree Sep 2011 - Jul 2015

Faculty of Management of Science and Engineering, Central University of Finance and Economics, Beijing, China

- Mathemats
- Computer Science

WORK EXPERIENCE

Software Engineering Manager (Payment & FX Infra Aspire FT

Mar 2025 - Present

Singapore

Payment Infrastructure & Technical Leadership

- Lead Payment (Banks, Payment providers) and stablecoin Integrations across APEC and globe.
- Led the design and development of scalable payment infrastructure, optimizing money movement flows and ensuring high system efficiency.
- Spearheaded the setup of Payment (Tech) Infrastructure in Hong Kong, leading debit account payouts, FX transfers, and payout/payin integrations.
- Designed and built a Microservices-based Payment Service Architecture, enabling seamless market expansion and preparing tech infrastructure for new regions.

Team Leadership & Engineering Excellence

- Led a team of 10 engineers, fostering technical growth and career development.
- Established engineering best practices, improving system reliability, performance, and security compliance.
- Managed end-to-end payment flows, ensuring compliance with regulatory standards and optimizing transaction monitoring.
- Collaborated with product managers and business stakeholders to align engineering initiatives with strategic goals.

Payment Architect & Engineering Manager

Jul 2022 - Dec 2024

Singapore

Architecture & System Design

Aspire Financial Technologies

- Next-Gen Payment Service: Architected a hybrid platform combining Monolith and Microservices to optimize scalability, enabling seamless handling of 13+ currencies (SGD, USD, EUR, GBP) transaction volume across APEC and US.
- **Distributed Systems**: Designed a **Redis-based rate limiter** (sliding window & token bucket algorithms in Golang) to manage 500+ TPS, reducing API throttling incidents by 65%.
- API & Integrations: Led development of RESTful APIs for merchant payments and gRPC services for inter-microservice communication, enhancing cross-border transaction reliability.

Technical Implementation

- API Maintainer for Go Projects: review code, technical decisions, build common libs
- Queue Frameworks: Built a prioritization system using AWS SQS & Kafka, improving transaction throughput by 30% and reducing failed payments by 25%.
- Infrastructure as Code: Deployed AWS ECS, RDS, and CI/CD pipelines to automate deployments, slashing release cycles from 2 hours to 15 minutes
- Performance Optimization: Instrumented Datadog dashboards and ELK stack for real-time monitoring, achieving 99.99% system uptime.

Leadership & Team Management

- **Team Leadership**: Directed a 9-member engineering team to manage SGD/USD/EUR/GBP FX transfers, reducing currency conversion costs by 18% through dynamic routing.
- Talent Development: Hired and mentored 15+ engineers, instituting code review practices with SonarQube that cut critical bugs by 25%.
- Market Expansion: Spearheaded technical infrastructure setup in Singapore, Hong Kong and USA for debit account issuance, enabling compliance with local regulations and entry into 3 new markets.

Compliance & Scalability

- Regulatory Alignment: Engineered a Transaction Monitoring Tool to automate fraud detection, ensuring adherence to MAS and HKMA standards.
- QA & Code Quality: Enforced rigorous testing frameworks, reducing production incidents by 40% post-deployment.

Senior Software Engineer Team Lead

Nov 2021 - Jul 2022

Aspire Financial Technologies

Singapore

Singapore

- Launched Configuration as a Service (CaaS), enabling zero-code market expansions into 5+ countries, cutting deployment time by 70%.
- Lead onboarding development team (5 engineers)
- Revamped onboarding flows, improving customer activation rates by 35%.

Senior Software Development Engineer (Payments)

Aug 2020 - Nov 2021

Thunes Singapore

- Migrated legacy Perl systems to Golang, boosting transaction throughput by 60%+.
- Integrated 10+ APAC payment providers (e.g., Alipay, DBS, Grab, CZBank) into a unified cross-border platform.
- Refactored and migrated 30+ APAC integrations from Perl to Golang within 7 months.
- Built a **Transaction Tracing API** with Elasticsearch-backed log indexing for every transaction and a human-readable tracing dashboard.
- Engineered a custom API bridge to resolve partner incompatibilities, cutting integration timelines by 50%.

Software Engineer Jun 2019 - Aug 2020

DocDoc Pte Ltd

Singapore

Optimized REST APIs for a doctor discovery platform, achieving 99.9% uptime on AWS.

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• Implemented CI/CD pipelines, reducing deployment cycles from 2 hours to 15 minutes.

Full Stack Developer Dec 2016 - Jun 2019

Golden Equator Consulting

Singapore

- Develop REST APIs for Spectrum Mobile App,
- · Building Access Door Control System (Brivo Integration),
- building React/Redux Components,
- Stribe Payment Integrations for Event Space (Spectrum)
- Building E-commerce Website, Manage Group Server Technologies: Python, Java, NodeJs, ReactJs, Postgress, MySql, MongoDB Applications:
- Cerebro Platform APIs (Django REST Framework), Spectrum Global Mobile App (REST API), Golden Equator Group website templates/components

Freelance Web Developer (Part-Time)

Besttours Singapore

Besttours Singapore

Sep 2016 - Nov 2016

Singapore

- 1. Building an E-commerce Website Develop both backend APIs and frontend components.
- 2. Build Kiosk (Ticketing Machine) which located at the Fragrance Hotel Bugis, Singapore
- 3. Technologies: PHP, CSS3, HTML5, Bootstrap, Angular 2, Electron

Full Stack Developer(Intern - Fulltime)

Apr 2016 - Sep 2016

Singapore

Develop and Maintain Singapore Changi Airport Website Worked mostly on the frontend of the main site.

- Involved in developing a One-Millionaire project. Maintained Changi Airport Website using CMS(AEM).
- Technologies: PHP Laravel, CSS3, HTML5, Bootstrap

SKILLS

Databases: RDBS, NoSQL

Software Development, Microservices, Distributed Architecture: Software Development, Microservices, Distributed Architecture

REST API Development: Build multiple APIS

Programming Languages: Golang, PHP, Perl, Python, Typescripts

LANGUAGES

Payment Infra 🖸 Feb 2022 - Dec 2024

- Design and Build Payout Service, Payin Service, Webhook Service
- Lead 10 Engineers (senior and Lead)
- Hiring