Yew Jung Sien

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Summary

Backend engineer with 7+ years of experience building scalable systems in fintech. Skilled in leading architecture, improving performance, and delivering product features end-to-end.

Experience

2025 (Present) **Senior Backend Engineer @ BigPay**

- **Core engineer on BigPay Biz,** BigPay's B2B cross-border payments platform — designed and built multiple Rust backend services from the ground up.
- **Built the transaction limits service from scratch:** regulatory, default and custom limit stacking with an idempotent check–commit–rollback enforcement flow, plus admin APIs with full audit trails.
- **Built the remittance fee service from scratch:** multi-level fee resolution (provider / per-tier default / per-organisation custom) and fee breakdown calculation across corridors and currencies.
- **Integrated the Tranglo payout provider** into the core remittance engine: checksum-verified webhooks, a forward-only transaction status state machine with full history, and FX-rate validation with historical rate tracking.
- **Integrated a new remittance provider,** enabling Thai users to perform fast and seamless local bank and PromptPay transfers. Designed and delivered a robust end-to-end backend flow with strong reliability, error handling and idempotency, including multilingual (Thai) localisation of the transfer screens.

Stack: Rust, Java, Kotlin, Spring Boot, Redis, PostgreSQL, Kafka, Prometheus, Grafana

2023 - 2025 **Backend Engineer @ BigPay**

- **Led the architecture and implementation** of credit and debit card top-ups, enabling seamless funding of user wallets at scale
- **Designed and built** a new in-person onboarding flow, significantly streamlining the signup process for face-to-face customer interactions
- **Led the development** of a feature enabling users to make charity donations through the app, integrating with external partners to ensure secure, user-friendly transactions.
- **Redesigned a core transaction storage system**, improving performance, reliability, and maintainability while reducing system complexity. Oversaw the **migration of all historical transaction data** with zero downtime.
- **Architected and delivered** a budget tracking service that empowers users to set and monitor overall and category-specific spending limits. Integrated real-time push notifications to proactively alert users when budgets are exceeded.
- **Built a real-time monitoring and alerting infrastructure** using Grafana and Prometheus to detect unusual user behaviours and potential malicious activities. This system ensures early intervention and platform security.
- **Integrated Singpass**, Singapore's digital identity service, into the signup flow for Singaporean users, ensuring seamless onboarding experience.

- **Maintained and optimized APIs** critical to the onboarding experience, improving availability, latency, and resilience.

Stack: Rust, Java, Kotlin, Spring Boot, Redis, PostgreSQL, Kafka, Prometheus, Grafana

2023 - 2023 **Senior Software Engineer @ Theta Service Partner**

- **Led and design and implementation** of an internal backend framework to streamline workflows and improve engineering efficiency
- **Optimized loan system performance** for financial clients achieving a 10x reduction in response time.
- **Mentored and onboarded** new engineers, helping them ramp up quickly and contribute effectively to client projects.

Stack: Java, Spring Boot, Angular, Vue, SQL Server

2019 - 2023 **Software Engineer @ Theta Service Partner**

- Created internal tools, optimising team workflows and productivity
- Provided support to UK-based client projects and managed server deployment for seamless system operations

Stack: Java, Spring Boot, Angular, Vue, SQL Server

Education

2015-2019 **MEng Material Science & Engineering, Imperial College London**

- 1st Class Honours

Projects

2025 **Multiplayer Poker (github.com/yewjung/poker-rust)**

- Built a real-time multiplayer Texas Hold 'Em game using **Rust**
- Developed the **terminal-based client UI with Ratatui**, providing an interactive and responsive TUI experience
- Implemented game state synchronization, room and player management and concurrent gameplay using **WebSocket**
- Used **Redis** and **PostgreSQL** for real-time game state and persistent storage

2023 **Deck API (github.com/yewjung/deck)**

- Developed a RESTful API in **Go** to simulate a 52-card deck
- Used **Redis** for fast, im-memory state storage and efficient deck management

Skills

Technical Java, Rust, Python, Go, Typescript, Postgres, SQL Server, Redis, Angular, VueJs, Spring

Languages English (native), Malay (native)