Emmett N. Young

Staff Software Engineer

Contact Information

🏠 Singapore

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# Featured Portfolio

🌐 <https://mettyoung.com/railway-routing-service/>

Created a containerized web app for suggesting railway routes to travelers in Singapore.

# Technical Summary

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| **Architecture** | DDD, CQRS, Hexagonal Architecture, Monolithic, Microservice |
| **Back-end** | Spring Boot, REST, Thrift, MySQL, Postgres, MongoDB, Redis, Elasticsearch, Clickhouse, RocketMQ, Kafka, JUnit, Spock, Cucumber, JMeter, Taurus |
| **Front-end** | ReactJS, Ant Design, Redux |
| **DevOps** | Liquibase, Maven, Gradle, Docker, Nexus Artifactory, Kubernetes, Ansible, TeamCity, Jenkins, ELK, Prometheus, Open Tracing |

# Employment

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| **Staff Software Engineer (CRM)** | **Tiktok Pte. Ltd.** | **Sep 2021 – Present** |

* Kickstarted a microservice from scratch, implemented Hexagonal architecture, and onboarded the team to launch **sales planning MVP** for the METAP region within 6 weeks.
* Started the project with horizontal slices for smoother onboarding, then repackaged it into vertical slices to enhance code maintainability.
* Established CQRS architecture to support global product rollout by building the data ingestion flow for Elasticsearch and Clickhouse as time-series query model.
* Kickstarted **sales forecasting project** to deliver an MVP to the US and METAP regions within 6 weeks, involving cross-regional effort where I onboarded 3 engineers.
* Overhauled plan & forecast by contributing 54% (10117/18709) lines of code in 3 weeks to accommodate monthly, bimonthly and quarter cadence due to reorganization.
* Crafted a lightweight test fixture utilizing DI to centralize mocks, streamlining UT cost, and improving development experience.
* Established coding standards by introducing checkstyle to CI pipeline.
* Resolved a 2019 issue, cutting department costs by reducing application startup time by 80 seconds, saving 2 hours (100 engineers) per build.
* Initiated backend technical retrospective to regulate technical debts and keeping architecture in check.

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| **Engineer Lead** | **Rakuten Asia Pte. Ltd.** | **Jun 2021 – Sep 2021** |

* Onboarded and mentored 3 backend engineers to full-stack development.
* Led one software release without any deployment issues.

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| **Software Engineer** | **Rakuten Asia Pte. Ltd.** | **Aug 2019 – May 2021** |

* Designed and presented the architecture to achieve eventual consistency between two databases to the architecture review team (Outbox Pattern, Kafka).
* Implemented 6 API endpoints using outside-in TDD where PR was approved with zero revisions and no bugs reported (Spring Boot, Cucumber, JUnit5).
* Wrote our team’s test framework alone, inspired by outside-in TDD, to address the substandard test code quality, improving test suite performance by 600%.
* Setup two microservices with CI/CD pipelines for the team to kickstart parallel development work (Spring Boot, Jenkins).
* Discovered and fixed API performance issues through load testing (JMeter, Taurus).
* Presented in engineering meetings (Kafka Connect, React Hooks, Test Framework).
* Reduced 10-15% bugs before QA starts through my meticulous code reviews (Awarded).
* Designed and implemented an ad creative review screen using ReactJS and Redux.

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| **Software Engineer II** | **Exist Software Labs** | **Feb 2019 – Jun 2019** |
| **Software Engineer I** | **Exist Software Labs** | **Aug 2017 – Jan 2019** |
| **Freelance Software Engineer** | **Nelsoft Systems, Inc.** | **Sep 2016 – Apr 2017** |
| **Software Engineer I** | **Nelsoft Systems, Inc.** | **Feb 2015 – Jan 2016** |

# Education Background

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| **Computer Engineering** | **De La Salle University Manila** | **May 2010 – Dec 2014** |

* Graduated with honorable mention having a CGPA of 3.203.
* Designed and implemented telemetry system for Shell Eco Marathon Asia in 2014.
* Developed autonomous exploration of two quadrotors for undergraduate thesis.