

# Bryan Kok

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Kuala Lumpur, Malaysia

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## TECHNICAL SKILLS

**Languages / Frameworks:** Java, Kotlin, TypeScript, JavaScript, Python, Spring Boot, React, React Query, Redux

**Tools / Concepts:** Spring Boot, Docker, Containerization, SQL, Redis, RabbitMQ, TestContainers, Microservices, CI/CD, OAuth2, Git

**Cloud Services:** Kubernetes, AWS ECS, EC2, Auto Scaling Group, Lambda, S3, CloudWatch Events, Elastic Container Registry

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## PROFESSIONAL EXPERIENCE

**KatyWorld** - Software Engineer

Kuala Lumpur, Malaysia  
**Jul. 2018 - Present**

**SunRecruit** – Sun Life Malaysia's recruitment platform from POC to production | [bryankok.com/#erec](http://bryankok.com/#erec)

- Architected and implemented RESTful APIs on the backend with **Kotlin, Spring Boot, MSSQL, Flyway, MapStruct** and **Hibernate** serving **2000+ monthly active recruiters across 100+ branches** as an OAuth2 resource server using Okta.
- Used Spring Security to support multiple authentication methods and role-based access control for system configuration across multiple services and application-level permissions; digitalized the entire recruitment loop handling 50+ new applications / day.
- Refactored SQL queries with QueryDSL to improve maintainability and improved performance by caching intensive queries in Redis.
- Set up a CI/CD pipeline building Docker images, deploying to docker-compose and Traefik and performing integration tests with TestContainers to ensure correctness on critical flows such as generating agreements embedding the CEO's signature.
- Developed and tested the frontend for candidates and recruiters with React, zod, react-hook-form, Jest and React Testing Library.

**DeployApp** – A beta app distribution platform allowing users to attach their own cloud storage | [bryankok.com/#deployapp](http://bryankok.com/#deployapp)

- Created this utility with **Spring Boot, PostgreSQL**, and React to solve common obstacles encountered during enterprise app beta testing with KatyWorld's clients, such as data handling requirements and reliable installs in a corporate network environment, saving 1 hour of developer and QA time per day.
- Wrote and unit tested Java wrappers for an existing Ruby app binary parsing library, leveraging the GraalVM polyglot runtime.
- Designed a horizontally scalable microservice architecture to parallelize CPU-intensive operations with workers, using **event-driven inter-service communication over AMQP / RabbitMQ**.
- Ran integration tests against external services, **containerized and deployed to Kubernetes** in a GitLab Actions CI/CD pipeline.

**CRM Platform for a multinational insurance company**

- Drove the adoption of documentation-driven API design by writing OpenAPI specifications and using swagger-codegen to generate native clients and server stubs for other teams for 1000s of CRM-to-bank API calls daily.
- **Led the migration of the platform from on-prem Windows server to AWS**; deployed to an ECS on EC2 cluster with an auto-scaling group behind an application load balancer; refactored file transfer flows to use AWS S3 and scheduled tasks to Lambda and EventBridge, resolving 10 security vulnerabilities in the process.

**Various customer-facing and internal React Native mobile apps**

- Developed the drug reference app for the National University Hospital of Malaysia - parsed and cleaned data of 1000s of drugs from unstructured data into MySQL with Python; delta-syncing and an optimized phonebook-style ScrollView. | [bryankok.com/#formu](http://bryankok.com/#formu)
- Customer and internal apps for Tokio Marine Life Insurance Malaysia from scratch - implemented features such as push notifications with Firebase, geolocation of surrounding panel hospitals, in-app deep links, managed state with Redux.

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## EDUCATION

**BSc. in Computer Science, 1st class honors**, Dean's scholarship (top 10%) recipient  
University of Nottingham

**Sep. 2014 – Jul. 2017**  
Ningbo Campus

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## OPEN SOURCE CONTRIBUTIONS AND PERSONAL PROJECTS

Contributed various bugfixes and features to **Mozilla Firefox's Developer Tools** | [bryankok.com/#devtools](http://bryankok.com/#devtools)

- [Added support for the SignalR protocol to the WebSocket Inspector](#) and [Improved the UX of multiline input in the browser console](#).
- [Added a clickable stack trace](#) to identify the [initiator of a network request](#) in the network monitor.

**Radically** – A component-based Chinese Character search engine | [radically.bryankok.com](http://radically.bryankok.com)

- Created ETL pipelines with **Python, Node.js, and AWS Lambda** for Unicode data of all 98000+ encoded CJK characters. Used Workbox to manage the lifecycle of the service worker, enabling offline installation as a Progressive Web App.