

Ryo Wijaya

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EDUCATION

National University of Singapore Singapore <i>Bachelor of Computing, Information Systems (Hons. w/ Distinction) FinTech Specialisation</i>	Aug. 2020 – June 2024
Heidelberg International School Germany <i>International Baccalaureate (IB) Diploma</i>	Aug. 2016 – May 2018

EXPERIENCE

Software Engineer Crédit Agricole Corporate & Investment Bank – As a founding engineer on a greenfield project , built modular ETL Treatment Chains using Spark Streaming , Spring Boot , and Google Cloud Platform ; developed and maintained Java drivers across a suite of 22+ ingestion, enrichment, and distribution pipelines spanning Commercial Real Estate Loans, ESG, and Capital Markets data. – Developed, tested, and shipped REST APIs and backend features across the core Spring Boot applications, delivering functionality spanning security integrations, configuration management, and Kafka -based messaging. – Owner and main contributor (7 of 9 core modules) of an internal Spring Boot DevTools platform covering automated JSON ↔ Avro conversion, Kafka topic management, and Apache Iceberg DDL generation from Avro schemas. – Developed a configuration validation and loading platform adopted across teams in Singapore and Paris to manage application inputs, reducing manual validation overhead and accelerating development and UAT cycles. – Architected and implemented OpenID Connect (OIDC) and OAuth2 SSO authentication for the Angular application platform; also developed UI features. – Engineered Java Avro deserializers and schema validation pipelines across both Spring Kafka and Spark Kafka consumers, integrating with Confluent Schema Registry to enforce strict schema contracts and eliminate non-compliant ingestion. – Managed end-to-end Avro schema versioning cycles, propagating changes across pipeline components and coordinating upstream/downstream integration teams through SIT to ensure pipeline integrity for UAT and production releases. – Designed and maintained GitLab CI pipelines covering automated build, test, Docker image builds, and staging/stable registry promotions; orchestrated application deployments using Helm and Kubernetes . – Strengthened application security by remediating Checkmarx and JFrog Xray vulnerabilities and enforcing SonarQube quality gates across all feature deployments and targeted large-scale remediation efforts.	July 2024 – Present
Software Engineer Intern SP Group – Developed an OCPP 1.6/2.0.1 compliant electric vehicle charger simulator using FastAPI and WebSockets . – Led load testing for over 2,000 simulated chargers to identify infrastructure scalability bottlenecks. – Built a Next.js platform for real-time charger configuration, message triggering, and log monitoring.	Jan. 2023 – June 2023
Software Engineer Intern Reluvate Technologies – Developed a hiring web platform using Node and GCP Cloud Services to automate over 90% of company recruitment processes, including document exchange and technical assessments. – Built a Python backend for an accounting platform to handle payments and contracts.	May 2022 – Aug. 2022

PERSONAL SOFTWARE PROJECTS

FinAI | *LangGraph, Qdrant, GCP* | Multi-tenant AI financial platform with KPI extraction, compliance gap analysis, and copilot **trade-signals** | *FastAPI, Telegram* | Telegram bot for daily stock technical analysis with AI-powered market summaries
PetHub | *Express.js, Next.js, PostgreSQL, Prisma, AWS* | Fully featured E-commerce pet-service marketplace
Optimal Travel Plan | *Jakarta EE, MySQL, Ionic* | Optimized travel itinerary generation app
ryo & blog | *React, JavaScript, Vite* | Portfolio website and tech blog
ibkr-tv-tradebot | *FastAPI, IBKR TWS API* | Tradebot for order execution and TradingView integration

SKILLS

Languages: Java, Python, JavaScript/TypeScript, HTML, SQL
Technologies: Spring Boot, Apache Kafka (Confluent), Apache Spark, Apache Iceberg, FastAPI, Next.js, React.js, Node.js, Angular, PostgreSQL, NoSQL Databases, Jakarta EE
Infrastructure & Tools: Kubernetes, Helm, Docker, GitLab CI/CD, Git, Google Cloud Platform (Cloud Run, Artifact Registry, GKE, Compute Engine, Cloud Storage, Cloud SQL, etc), Azure (VM, AKS, Functions, Cosmos DB, Storage, etc)
AI Engineering: RAG, LangGraph, LangChain, Qdrant, Ollama
Interests: Electric Guitar, Piano, Drums, Music Production
Communication: English (Native), German (Conversational), Mandarin (Conversational)

CERTIFICATIONS

Certified Kubernetes Application Developer (CKAD) - 98/100 <i>Cloud Native Computing Foundation</i>	2025
Confluent Apache Kafka Fundamentals Accreditation <i>Confluent</i>	2026
Financial Technology Specialisation (Distinction) <i>National University of Singapore</i>	2024