

Jeremaine Cheong Jia Yong

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EDUCATION

Singapore Management University

Bachelor of Science, Computer Science

August 2023 – May 2027 (Expected)

- Current GPA: 3.94/4.00 (Summa Cum Laude – Highest Distinction)
- Accomplishments: Wilmar Scholarship, Dean's List (AY23/24, AY24/25), Ellipsis Code# '25 (2nd in Cohort)
- Teaching Assistantships: Object-Oriented Programming; Stats for Data Science; Solution Architecture
- Relevant Coursework: Full Stack Development (A), Product Management (A), Databases (A+), Algorithms (A+), Operating Systems (A+)

PROFESSIONAL EXPERIENCE

Central Provident Fund Board

Java Developer Intern (Investment Systems)

May 2025 - Present

- Developed Spring Batch jobs (JSL) across 5+ investment modules to automate high-volume data processing; submitted and monitored batch runs via JCL using TSO/ISPF for Mainframe integration.
- Migrated 6 COBOL components to Java, reengineering legacy logic and deploying to CICS Liberty and JBoss to ensure seamless integration within CPF's enterprise system landscape.
- Supported SIT and UAT by validating business logic, resolving defects, and leveraging Jenkins, SonarQube, and Jennifer APM to monitor build quality and application performance across environments.

Energy Wave Worldwide Pte Ltd

Operations & Process Improvement Intern

September 2020 - February 2021

- Spearheaded migration to inventory management software and built VBA scripts to automate inventory tracking and accounts management, cutting manual entry by 50% and maintaining 100% stock accuracy throughout 6-month tenure.
- Implemented a Kanban system, boosting workflow efficiency by 25% and reducing project turnaround times by 30%.
- Led and coached a team of five E2C (special-needs) staff, enhancing productivity by 40% through structured task delegation and consistent support, with 100% on-time task delivery and quality benchmarks met.

PROJECTS

MinuteAI | FastAPI, Next.js, GraphQL, Whisper, Gemini, PostgreSQL (Supabase), Redis, Celery, Terraform, GCP, Vercel

Sole Developer

- Transformed meeting audio into searchable transcripts and structured summaries using Whisper (transcription), Gemini (summarisation), Sentence Transformers (embeddings), and pgvector (semantic search).
- Developed a real-time chat assistant with Retrieval-Augmented Generation (RAG), combining semantic search and LLM-powered Q&A, exposed via GraphQL APIs for source-cited, natural language answers.
- Achieved >95% accuracy and <5-minute results for 100+ concurrent jobs via distributed task processing with Celery, Redis, and asyncio, and automated, zero-downtime, multi-cloud deployment using Terraform and GitHub Actions.

Scrooge Bank CRM | Spring Boot, Next.js, REST, Docker, Kafka, PostgreSQL (Aurora), Redis, Terraform, AWS

Full Stack Developer & SCRUM Master (Team of 7)

- Engineered scalable REST APIs with pagination, search, filtering, Redis caching, and Aurora read replicas, reducing average response time from ~3.5s to <200ms at 10k+ req/min.
- Architected event-driven microservices using Kafka (MSK) and Protobuf, cutting payloads by 40% and tripling inter-service throughput.
- Designed and automated an ETL pipeline (SFTP → S3 → SQS → Lambda → Aurora) for resilient, real-time ingestion and processing of high-volume transactions.
- Built a production-grade CI/CD pipeline with GitHub Actions, SonarQube, and ArgoCD, enabling automated testing, quality gates, and zero-downtime deployments to EKS, with observability via Prometheus and Grafana.

SKILLS & CERTIFICATIONS

- *Programming Languages:* Java, Python, C, C++, Go, JavaScript, TypeScript, Kotlin, SQL, JCL
- *Frameworks & Tools:* Spring, FastAPI, Next.js, REST, GraphQL, Maven, Gradle, Kafka, Celery, JUnit, Git
- *Databases:* PostgreSQL, MySQL, MongoDB, IBM Db2, Redis
- *Cloud & DevOps:* AWS, GCP, Docker, SonarQube, Jennifer APM, Jenkins, GitHub Actions, ArgoCD, Terraform
- *Certifications:* AWS Certified Solutions Architect - Associate; Google IT Automation with Python