

# Jeremaine Cheong Jia Yong

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## EDUCATION

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### 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 (2<sup>nd</sup> 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

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### 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

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[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

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- *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