

Deanson Choo

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EDUCATION

National University Of Singapore

B.Eng In Computer Engineering

GPA 4.52 / 5.0

Aug 2023 - May 2027

Boston University

Exchange Student

Aug 2025 - Dec 2025

EXPERIENCE

Digitalization & Automation Intern

Heraeus Medevio

May 2025 - Aug 2025

Singapore

- Developed a Python automation script via the ClickUp REST API to synchronize external datasets, eliminating manual data entry bottlenecks and ensuring data integrity for downstream Power BI visualizations

Software Engineer Intern

Techfox Pte Ltd

Jan 2026 - May 2026

Singapore

- Developed a full-stack real-time monitoring dashboard for autonomous robot fleets, utilizing Django REST Framework, Python asyncio, Redis, WebSockets and Tailwind CSS
- Engineered a continuous data pipeline via Redis Pub-Sub and Python asyncio, streaming live telemetry to a responsive frontend UI using Django Channels and JavaScript
- Designed efficient database models with Django ORM to power core operational features, including an event-driven email alerting system and a robust mission scheduler utilizing RRULE

PROJECTS

Cinema Booking Application | *Next.js, Go (Gin), Redis, PostgreSQL, Docker, K6*

- Engineered a full-stack cinema booking application optimized for high-traffic ticketing environments, maintaining p95 response times under 100ms during simulated traffic spikes
- Architected a concurrency-safe booking flow using distributed locking, successfully preventing double-bookings and maintaining a 0% error rate when stress-tested with 100 concurrent requests targeting a single seat
- Built an idempotent payment pipeline to guarantee exactly-once processing, ensuring zero duplicate charges when handling up to 50 simultaneous duplicate payment attempts

ReccoMe | *React Native, Express.js, PostgreSQL, Cloudinary, Mapbox*

- Developed a food-mapping mobile app using React Native, Express.js, and Mapbox to log, rate, and track dining spots on an interactive map
- Optimized API load and frontend performance by implementing debounced search inputs and utilizing React Query for efficient server-state caching across multiple screens
- Architected a secure REST API backed by PostgreSQL, utilizing parameterized SQL queries to eliminate injection vulnerabilities and offloading image storage to Cloudinary to minimize database bloat
- Implemented a resilient dual-token JWT authentication strategy with automatic refresh-token rotation, ensuring secure user sessions managed locally via Zustand and encrypted device storage

TECHNICAL SKILLS

Languages: Python, JavaScript, Go, Java, C/C++

Frontend & Mobile: React, React Native, Next.js, Tailwind CSS, HTML/CSS

Backend & Databases: Django, Express, Gin, PostgreSQL, MongoDB, Redis

DevOps & Tools: Docker, Git, Vercel, Render, Cloudinary, Postman, K6