

JONUS HO ZHI WEN

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EDUCATION

National University of Singapore

Aug 2023 - May 2027

Bachelor of Computing in Computer Science (Honours)

- Specialising in Software Engineering and Database Systems
- Grade: Honours (Distinction)
- Enrolled in NUS College, Honours college of NUS with foundations in the University Scholars Programme (USP)
- Relevant Courses: Programming Methodology, Data Structures & Algorithms, Software Engineering, Database Systems, Computer Networks, Introduction to AI and Machine Learning, Big Data Systems for Data Science

EXPERIENCE

Shopee (Monee), AI Engineer Intern

Aug 2026 - Present

- Engineer AI-driven compliance automation workflows for ISO, PCI, and SOX 404 ITGC controls, translating regulatory requirements into executable, auditable workflows for automated evidence collection and validation.
- Build MCP-compatible servers and structured AI-agent tools for secure compliance-data retrieval and control execution, while improving backend performance through optimised database reads, API request prioritisation, deduplication, and caching
- Develop API-first infrastructure for agentic AI workflows using Python and REST APIs, integrating enterprise services with authentication, authorisation, structured outputs, error handling, end-to-end audit logging, and backend performance optimisations.

GovTech, Software Engineering Intern

Jan 2026 - Mar 2026

- Architected a vulnerability discovery pipeline with AWS Lambda and SQS, automating oversight of unlinked sub-modules and streamlining audits.
- Engineered an AI-powered dependency scanner using LangChain and AWS Bedrock to map GitLab tech stacks, resolving exact library versions from complex lockfiles via automated LLM-based extraction.

Central Provident Fund Board (CPF), Software Engineering Intern

Jun 2025 - Nov 2025

- Built and scaled backend services and REST APIs using FastAPI and PostgreSQL to support enterprise-grade AI-driven tools.
- Developed chatbots and automated audit systems leveraging GenAI and NLP, streamlining audit processes and reducing manual workload by ~40%.
- Created responsive web platforms with React and integrated full-stack applications on AWS with CI/CD pipelines, monitoring, and observability tools for robust deployment.

PROJECTS

Redflags | Winner | Build For Good 2025

Jun 2025 - Jul 2026

- Designed an AI-powered PDF ingestion pipeline leveraging NLP and document parsing to extract structured financial data, surface hidden fees, and generate concise plain-English explanations for users.
- Built an intelligent RAG system using Next.js, FastAPI, Supabase, Redis, and Gemini AI, enabling low-latency retrieval, grounding, and analysis of user-uploaded financial documents, outperforming generic chat models by grounding responses in Singapore-specific financial contexts.
- Engineered privacy-first frontend and storage workflows with ephemeral data handling, auto-cleanup jobs, and strict isolation of user uploads to minimise data retention risk.
- Featured on The Straits Times, CNA, Channel 8, and Money FM 89.3; validated usability and trust via iterative testing with 500+ participants in heartland settings, including community clubs and public community spaces.

KaypohHeroes | National AI Student Challenge 2025

Mar 2025 - May 2025

- Designed and built a native Android app using Kotlin, Jetpack Compose, and MVVM to drive civic participation through gamification, estate-based communities, and AI-powered issue reporting.
- Integrated speech-to-text APIs, custom NLP pipelines, and TensorFlow Lite image classification for real-time processing of voice, text, photos of public facilities and implemented Retrofit-based REST communication with backends using Supabase for reports, auth, and gamification logic.
- Managed Android permissions (camera, microphone, location) and implemented Retrofit-based REST communication with backends using Firebase/Supabase for reports, auth, and gamification logic.

Team ZAJJ | Web-based Minimart Project | NUS DSC Hack4Good

Jan 2025 - Feb 2025

- Built a full-stack, production-ready minimart web app with React.js and PostgreSQL, including inventory management, admin dashboard, and order processing within a 24–48 hour hackathon, reaching finalist stage among ~100 teams.

Climate Betizens | NUSCollege Impact Experience Project

Aug 2024 - May 2026

- Developed a PWA using React.js, Tailwind CSS, and Supabase (PostgreSQL) to deliver an offline-capable, installable climate literacy platform, in partnership with Land Transport Authority (LTA).
- Built a gamified prediction market for 800+ users, implementing estate-based community segmentation and behaviourally informed mechanics (live scenario tracking) backed by real-time pipelines integrating survey platforms and Singapore environmental data APIs.

TECHNICAL SKILLS

- Languages: Java, JavaScript, TypeScript, Python, SQL, C, Kotlin, HTML, CSS
- Frontend: React, Next.js, Jetpack Compose, Tailwind CSS, JavaFX
- Backend and APIs: FastAPI, Django, Flask, PostgreSQL, Supabase, NoSQL, REST API, Firebase, LangChain, Retrofit, TensorFlow Lite
- DevOps: Docker, GitHub Actions, GitLab CI/CD, AWS (DynamoDB, EKS, EC2, RDS, Lambda, S3)
- Security and GRC: OAuth 2.0, OIDC, JWT, RBAC, DevSecOps, SOX 404 ITGC, IPE Controls, GRC and Audit Automation
- Experience with Full-Stack Development, AI and Machine Learning, Database Systems, DevSecOps, Web/Mobile Dev, GRC