Joshua David Ang

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EDUCATION

Singapore Management University

Bachelor of Science, Information Systems   *Aug 2022 - May 2026 (Expected)*

WORK EXPERIENCE

Software Engineer Intern

GovTech Singapore (Government Digital Services)   *Jan 2024 - Jul 2024*

- Led **back-end development** for a greenfield project using **object-oriented design principles** to implement over **10 API endpoints** serving **34,000+ users**.
- Led **front-end development** for Sparks, a tool designed for public officers, reducing development time by **25%** and launching the product within **2 months**.
- Developed **5 user-centric features** for a consumer product CrowdTaskSG, leading to **20%** increase in crowd-sourced data collection.
- Optimized application performance through advanced memoization techniques, reducing unnecessary re-renders and caching computationally expensive components which led to **30%** decrease in page load times.
- Ensured codebase reliability and stability through the meticulous creation of comprehensive test cases, resulting in over **90%** code coverage.
- **Technologies: TypeScript, Next.js, Tailwind CSS, Koa.js, PostgreSQL, TypeORM, Docker, Jest**

Software Engineer Intern

Pigeonhole Live (PigeonLab)   *Jan 2023 - Mar 2023*

- Developed responsive webpages to ensure a seamless user experience across all devices and screen sizes which led to **30%** increase in mobile engagement and **25%** boost in overall user satisfaction.
- Wrote Jest unit tests to ensure robust software code quality, reducing bugs and technical debts by **40%** through early issues identification and resolution in the development cycle.
- **Technologies: Vue.js, JavaScript, Jest, Docker, GitLab**

Software Engineer Intern

Blockchain Solutions (BSG)   *May 2022 - Jul 2022*

- Spearheaded front-end development of a NFT marketplace which led to **30%** increase in user engagement and **20%** increase in **new user sign-ups.**
- Developed more than **10 reusable components** to ensure consistency across the application, leading to **30%** decrease in development time.
- Collaborated with UI/UX designer to validate and refine technical designs, ensuring alignment with design vision.
- **Technologies: React.js, Next.js, Web3.js, Tailwind CSS, Firebase**

PROJECTS

Project Scan!

Full Stack Web Application (GovTech Hackathon) — FE GitHub, BE GitHub   *May 2024 - June 2024*

- Developed a minimal viable product using **Optical Character Recognition** (OCR) to identify healthier purchases from receipts, empowering Health Promotion Board (HPB) to offer incentives for healthier decision-making.
- Pitched and presented solution to judges from GovTech and HPB, with HPB showing strong interest in adoption.
- **Technologies: TypeScript, Next.js, Tailwind CSS, Nest.js, Vector Database**

Project Sayless

Full Stack Web Application (School Project) — FE GitHub, BE GitHub   *Aug 2023 - Nov 2023*

- Led a team of 3 members to develop a gamified full-stack web app facilitating food sharing, integrating receipt uploads for inventory management and quest completion for voucher rewards.
- **Technologies: Vue.js, Express.js, MongoDB, Tailwind CSS, Firebase Authentication**

TECHNICAL SKILLS

Programming Languages: TypeScript, JavaScript, Python, Java, SQL, PHP, Swift
Frameworks/Libraries: React.js, Next.js, Vue.js, Node.js, Express.js, Koa.js, Flask, SwiftUI, Tailwind CSS
Others: Data Structures & Algorithms, Object-Oriented Programming, PostgreSQL, MySQL, RESTful APIs, GraphQL, HTML, CSS, Git, Docker, Amazon Web Services