

# KEE SONG YANG

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## EDUCATION

### National University of Singapore (NUS)

Expected May 2026

*Bachelor of Computing (Computer Science), Honours*

- **Relevant Coursework:** Software Engineering, Object-Oriented Programming, Database Systems, Information Security, Network Systems, Operating Systems, Data Structures & Algorithms, AI & ML
- **Teaching Assistant:** CS1010X Programming Methodology — Python and Java

## WORK EXPERIENCE

### [Ola Chat](#) (Singapore), *Software Engineer Intern*

Jul 2025 - Present

- Built interactive **React**-based mini-games for **WebView** and **gRPC** integration within a Flutter app, ensuring cross-platform compatibility on Android and iOS; improve user experience with lazy loading and **TanStack Query** caching
- Migrated **CI/CD** to a two-step flow — self-hosted GitHub runner builds changed subprojects and uploads artifacts, followed by webhook-triggered **Aliyun Flow** deployment, shifting build workload off the deployment server for cleaner separation of concerns
- Built and deployed responsive, multi-brand static sites with **Vite**; automated CI builds with domain-specific assets and streamlined artifact deployment to **Aliyun ECS**, simplifying **nginx** setup across 3 domains

### [Voltade](#) (Singapore), *Software Engineer Intern*

Jan 2025 - Jun 2025

- Led the end-to-end design of an AI curriculum planner adopted across 28 preschool branches by running weekly stakeholder meetings, live demos & continuous user feedback loops
- Automated data migration across platforms by building an **ETL**-style pipeline using **Graphile Worker** cron jobs to extract data from external sources, transform WhatsApp message data and load into **PostgreSQL**, ensuring idempotency across 20000+ records
- Resolved a **Supabase Auth** production bug affecting Outlook users by analyzing server logs and identifying email prefetching behavior that caused magic links to expire
- Developed a video-to-report tool using **React** with **TanStack**, **FFmpeg** to scale and extract frames, and **OpenAI GPT** tool calls to identify students, reducing teachers' time spent per report by 75%
- Learnt **Vue** and **Ruby on Rails** from scratch within 2 weeks to launch a broadcast feature with metrics tracking using WhatsApp Cloud API, sending messages to 500+ customers per campaign

### [Podsmart AI](#) (United States), *Software Engineer Intern (Remote)*

May 2024 - Aug 2024

- Built an intuitive audio player in **React** in a mobile responsive layout, enabling UX through progress bar markers for key topics, synchronized playback with transcript timestamps, and direct audio jumps to identified entities
- Devised a usage tracking schema using **FastAPI**, **Supabase** with **PostgreSQL** to precisely track and enforce user monthly podcast summarisation limits, eliminating a loophole that allowed unlimited access to transcribed episodes
- Resolved a critical authorization flaw by implementing **role-based access control** middleware using **JWT**, preventing free-tier users from accessing premium features
- Optimised API performance for episode page by adding **composite index** to SQL table, which sped up page loading by 60%

## PROJECTS

### TypeDash V2 ([Repo](#) | [Link](#))

Jul 2025 - Present

- Developed a real-time type-racing game using **React** and **WebSockets** (migrated from **Socket.IO**), leveraging **Redis** for centralized game state management and **Redis Pub/Sub** to broadcast typing progress to users within multiplayer rooms
- Migrating backend from Express.js to Golang for better concurrency support; implementing a **Redis**-powered leaderboard system for real-time ranking updates

### Exportifellas ([Repo](#) | [Link](#))

- Built a plaintext playlist extraction feature using the **Spotify API** in an open-source fork, deployed for internal use in NUS Raffles Hall, streamlining the song voting process for all future performances

## TECHNICAL SKILLS

**Languages:** JavaScript, TypeScript, SQL, Python, C, Java

**Frameworks:** React.js, Next.js, TanStack, Tailwind CSS, Hono.js, FastAPI, Socket.IO, Firebase, Supabase, Drizzle ORM, gRPC

**Technologies:** Linux, Bash scripting, Docker, LLMs, CI/CD, Protobuf

