Stuart Long Chay Boon

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EDUCATION

NATIONAL UNIVERSITY OF SINGAPORE, Singapore   **Aug 2020 – May 2024**
- Bachelor of Computing in Computer Science, Cumulative Average Point: 4.76/5.00 (Highest Distinction)
- Dean's list for AY2020/21 Semester 2, AY2021/22 Semester 2 for Top 5% of Academic Performance, Top 5% for Software Engineering
- NUS Overseas College New York Batch 19
- Teaching Assistant for Software Engineering (CS2103/T), Programming Methodology II (CS2030S) and Computer Organization (CS2100)

WORK EXPERIENCE

KISI, New York | Backend Engineer Intern | Ruby on Rails, Google Cloud Platform, Redis, Elasticsearch   **Jan 2023 – Dec 2023**
- Maintained efficient and scalable API serving over 100 third party integrations and 10,000 hardware devices.
- Developed the new marketplace app that streamline integrations, generating estimated $1.6 million USD in revenue.
- Enhanced existing integrations with third party APIs, such as Skedda and Glofox, to deliver new features for enterprise customers.
- Built circuit breaker mechanism to scale the job processing system, ensuring uninterrupted service and reducing API downtime by 15%.
- Implemented an SMS feature using Twilio, serving over 1000 clients and generating a new revenue streams for the company.
- Expanded the API to support Spanish and German, resulting in a 5% increase in product adoption.
- Upgraded internal admin dashboards, significantly improving user experience and increasing workflow efficiency by over 200%.

GOOGLE DEVELOPER STUDENT CLUB, Singapore | Software Engineer | ReactJS, NextJS, Typescript, Prisma   **Aug 2022 – Present**
- Collaborated with The Food Bank Singapore to build Project Juniors Club, making a positive impact on food wastage and security.
- Developing an intuitive admin portal for internal staff and an e-learning platform to educate about food sustainability in Singapore.
- Engineered a high-performance RESTful API for the backend server, effectively handling a high volume of requests.
- Implemented Recoil as a state management system for the frontend and maintained the backend architecture using Prisma ORM.

DSO NATIONAL LABORATORIES, Singapore | AI/ML Software Engineer Intern | ReactJS, NodeJS, FastAPI   **May 2022 – Jul 2022**
- Developed an Artificial Intelligence powered video editing software to advance cyber security capabilities of Singapore government.
- Designed AI/ML pipelines consisting of different CV and LLM models to enhance accuracy of current processes by more than 20%.
- Created a frontend architecture and backend server to automate video editing processes by more than 75%.
- Appointed as Project Manager to manage deadlines and ensured deliverables were met and spearheaded weekly sprint meetings.

JONES LANG LASALLE, Singapore | Software Engineer Intern | Python, MySQL   **Jan 2020 – Apr 2020**
- Familiarised with Python and SQL to improve abstraction and quality of existing codebase, increasing efficiency of the internal software.
- Generated data mapping documents for an ETL process, improving productivity by automating manual processes.
- Engineered test cases for a BI solution which exposed potential multiple bugs in the system.
- Familiarised with Master Data Management and performed gap analysis to assess performance of internal system.

RELEVANT PROJECTS

Tech Offers Repo | ReactJS, NextJS, Prisma, Tailwind CSS, Supabase
Tech Interview Handbook project, 93k stars on GitHub and won 3rd place at 21st NUS STePs.
- Implemented a scalable database schema and developed API endpoints handling high volumes of HTTP requests from 10k Monthly Active Users.
- Created an analysis engine that evaluates submitted offers against similar offers and user profiles, optimising decision-making process.
- Engineered geolocation services to display offers relevant to users within the same area, improving personalised user experience.
- Programmed a script to efficiently scrape past offers information, saving more than 5 hours of manual transferring time.

Avon | React Native, Python, GPT-4, OpenAI, Langchain, Google Cloud Platform, FastAPI, Supabase
AI personal assistant and productivity co-pilot, managing user's daily schedule. Chosen by VC for $10k funding. Built in HackHarvard 2023.
- Set up integration with GPT-4 and developed prompts using Langchain and Open AI.
- Implemented integration with Google Calendar to enable the AI assistant to intelligently edit and schedule events.
- Built a robust Google Cloud Architecture to automate CRON job scheduling.

Giving Coupons | ReactJS, NextJS, Prisma, Supabase
Platform to create campaigns sponsored by donors to increase awareness of charities in Singapore.
- Built an internal admin dashboard to create, manage and view details about campaigns, charities and vouchers, and the home page.
- Designed the database architecture and RESTful API, efficiently store and fetch information of vouchers, charities and campaigns.
- Executed user testing by distributing vouchers leading to increase of users donating money to charities by more than 50%.

CardBox IOS | Swift, SwiftUI, Firebase Firestore
Card game framework to build turn based games, saving developers time managing lower level implementation details.
- Launched two games (Exploding Kittens and Monopoly Deal) to showcase ability of framework to create diverse array of games.
- Engineered online multiplayer feature, including joining and hosting games, allowing hundreds of people to play online simultaneously.

Peggle Clone IOS | Swift, SwiftUI
Clone of the famous Peggle game.
- Implemented physics engine and game engine from scratch to enhance game flow and provide a realistic gaming experience.
- Devised special powered pegs, a point system and visually enhanced the game to create an immersive experience.
- Built following good protocol orientated programming practices and MVVM architecture.

TECHNICAL SKILLS

- **Programming Languages:** Ruby, Python, Java, Javascript/Typescript, HTML/CSS, Swift, SQL, Postgresql
- **Frameworks and Tools:** Rails, ReactJS, NodeJS, NextJS, Express, Prisma, Firebase, Figma, SwiftUI, SocketIO, JavaFX, Gradle, React-Native