Peh Hoe Khim Marcus

+65-97768352 • marcuspeh@u.nus.edu • linkedin.com/in/marcuspeh • marcuspeh.github.io Performance-driven Computer Science undergraduate at National University of Singapore, with experience in Agile Software Development. Possess strong problem-solving, analytical and time management skills.

EDUCATION

National University of Singapore (NUS)

Aug 2020 - Present

- Bachelor of Computing in Computer Science (Honors)
- Expected Date of Graduation: Jan 2024
- CAP: 4.76/5.00 (Highest Distinction)

WORK AND INTERNSHIP EXPERIENCES

Bytedance, Backend Software Engineering Intern

Aug 2023 - Present

Jul 2020 - Present

Roboto Coding Academy, Coding Instructor

- Administered coding lessons for kids from age of 5 to 15 to ignite interest in coding
- Curated curriculum in Python, Html etc.
- Taught in coding centres and schools such as Victoria School and Chung Cheng High School

Google, Software Engineering Intern

May 2023 - Aug 2023

- Reduced memory usage by fixing at least 32 memory leak issues and resolving 195 violations
- Decreased QR code loading time by 93.5% from 1.38s to 0.09s by removing RPC call
- Lowered proximity verification range by 99.5% from 2km to 10m by leveraging Bluetooth Low Energy

National University of Singapore, Teaching Assistant

Jan 2021 - May 2023

- Led more than 60 students towards active learning of Computer Science modules
- Mentored students by providing apt feedback to queries and assignments
- Conducted modules: CS1010X Programming Methodology I, CS2030S Programming Methodology II, CS2040S Data Structures and Algorithms, CS2103T Software Engineering

GovTech, Software Engineering Intern

May 2022 - Jul 2022, Dec 2022 - Jan 2023

- Reduced loading time of web page by 10% by removing unnecessary API calls
- Strengthened security by implementing Two-Factor Authentication
- Improved server query response time under load by 200x through API restructuring

Reluvate Technologies, Software Engineering Intern

Nov 2021 - Jan 2022

- Established end to end web applications to house AI and Automation solutions
- Created backend APIs for a multi-national real-estate company
- Constructed Optical Character Recognition (OCR) to process pdf with more than 95% accuracy

PROJECTS

Markeet - Point of Sales (github.com/marcuspeh/markeet)

- Built a web-based Point-Of-Sales system to targets SMEs and customers using *MongoDB*, *ExpressJs*, *ReactJs* and *Node.js* (*MERN*)
- Competed in the NUS Orbital Software Development Program to achieve Artemis (Distinction)
- Employed comprehensive end-to-end testing of primary user flows with *Cypress*

Around the World in \$80 - Expense splitting (github.com/marcuspeh/Around_The_World_In_80)

- Targets pain point of group travelers in splitting bills
- Use various software design pattern such as "command pattern" and "model, view, controller"
- Programmed in *Java* using JavaFx Library with 90% code coverage

To Do Manager (github.com/marcuspeh/todo-manager)

- Developed creation of account and tracking of to-do task flow
- Ensured security by encrypting sensitive information using RSA
- Programmed with *Node.js*, *Koa*, *Postgres* for backend and *Next.js* for frontend

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EXTRA-CURRICULA EXPERIENCE

OGP's Build for Good 2023 Hackathon

Jun 2022

- Engineered solution to simplify medical health report for general public
- Implemented parsing of pdf report
- Utilized Large Language Model (LLM) and hard coded data process health report data

JPM's Code for Good 2022 Hackathon

Oct 2022

- Built prototype for social good organization (SG Assist) to better serve constituents
- Consolidated ideas to formulate product features
- Streamline process of application for support / grant

GIC's Code to Impact 2022 Hackathon

Sep 2022

- Delivered an instrument tracking web application catered to business
- Added extra features such as cross checking of data and logging system
- Spearheaded team of 5 to win 2nd runner up

ADDITIONAL INFORMATION

- **Programming Languages:** Python, C++, JavaScript, TypeScript, Java, C, SQL, Dart
- Libraries & Frameworks: ReactJs, NextJs, Django, Flutter, React Native, Android
- Databases: Postgres, SQLite, MongoDB
- Tools: Figma, Heroku, Vercel, Unix, Git, AWS
- Soft Skills: Leadership, Problem Solving, Teamwork, Independent
- Certification: AWS Solution Architecture Associate