Kartikeya Kartikeya

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Education

National University of Singapore

Aug 2021 - May 2025

Singapore

Bachelor of Computing (Honors) in Computer Science

Coursework: Data Structures & Algorithms, Databases, Software Engineering, Artificial Intelligence & Machine Learning, Computer Organisation, Statistics, Introduction to Data Science

Professional Experience

Dell Technologies

May 2023 - Present Singapore

Software Engineer Intern

DevOps Automation: Create scalable internal DevOps microservice to automate VMware vSphere lifecycle management

- using React.js, Python, Flask, FastAPI, VMware API, Kubernetes, Docker, MySQL, minimising incoming Jira tickets.
- Custom API: Develop low-latency backend API solution and frontend interface using Python, Flask, FastAPI to automate handling of GitHub organisational access requests, significantly reducing response time.

School of Computing, National University of Singapore Teaching Assistant

Jan 2023 - Apr 2023 Singapore

- Mentorship: Guided 12 CS freshmen in mastering Java's object-oriented and functional programming paradigms and improved their coding skills and confidence, while providing them personalized feedback and grading.
- Presentations: Delivered course material in an engaging manner tailored to student interests, and utilized interactive activities resulting in an enhanced learning experience and high student engagement.

Ridge View Residential College (RVRC) Symposium Web Developer (Contract)

Aug 2022 - Oct 2022 Singapore

Website Development & Design: Developed frontend interface using React.js and Material UI, and integrated WordPress CMS backend to help professors edit 300+ abstracts more seamlessly, minimising person-hours spent. The website met the needs of both the professors and attendees and contributed to the event having over 100 attendees.

Volunteering

Google Developers Student Club, National University of Singapore Software Engineer

Sep 2022 - Present Singapore

Supporting local non-profit, Food Bank Singapore, in digitalising Juniors Club youth program to increase future intake size.

- Cart Feature: Design and implement a user-friendly frontend for cart interactions, ensuring seamless usage for over 100 Food Bank SG volunteers. Create post-payment backend API routes to update user purchases.
- Dashboard & LMS: Collaborate in a team of 15 to deliver a polished, ready-for-market dashboard and Learning Management System (LMS) within a year, resulting in improved productivity and user experience.
- Developed PWA: Develop a high-performance progressive web app (PWA) using TypeScript, Next.js, React.js, Chakra UI, & PostgreSQL, achieving a 99% Lighthouse performance audit, resulting in faster load times & better user experience.

The BAUM Movement

Jul 2021 - Sep 2022

Head of Technology

Singapore

Student-led sustainable investing movement empowering Gen Z to invest in ESG topics, supporting businesses that solve global issues.

- Website Development: Led website development and design, incorporating self-taught UI/UX principles to create an intuitive prototype using Figma, then translated it over to a live webpage, received \$8,000 grant from government.
- Data Website Analytics To Enhance SEO: Analyzed website traffic data to enhance SEO and increased page visits by 129% over 3 months, resulting in higher visibility and engagement of the movement.

Open Source

- Node.js: Isolated and fixed critical bug on website backend using TypeScript and Gatsby.js, resolving a 2-week period where the download button was unusable during major software upgrades (PR)
- TypeScript-ESLint: Fixed linting bug where ordering checks did not occur; wrote relevant unit test (PR)

Projects

- Lockdown: Full-stack tablet security application developed using MongoDB, Express, React.js, Node.js (MERN stack), MUI; awarded Honorable Mention at NUS Lifehack 2022; contributed all frontend interactions with user and API (GitHub)
- OpenMic: Full-stack social media for live entertainment developed using MERN, MUI, Figma; developed frontend (GitHub)

Leadership

- Vice-Project Director, RVRC Open Day 2023: Led team in publicity direction and video filming, resulting in 323 (record high) signups to the Residential College. Coordinated with internal and external stakeholders to develop advertisements.
- Publicity Lead, NUS Student Life Fair 2022: Managed the overall publicity direction for an event with 24,000+ attendees by leading a team of 4 in contributing to the event's design, including logo, apparel, publicity booklets, and social media.

Skills

- Programming Languages: JavaScript Java Python TypeScript SQL HTML CSS
- Frameworks, Libraries: React is Next is Flask FastAPI NumPy MUI Chakra UI
- Developer Tools: Docker Kubernetes VMware MySQL PostgreSQL Prisma Git