

# Charisma Kausar

Fresh CS Graduate • Available for full-time Software Engineer roles immediately

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## EDUCATION

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### National University of Singapore (NUS)

Aug 2020 – May 2024

*Bachelor of Computing in Computer Science (Honours)*

- Distinction in Software Engineering (focus area GPA 4.93/5.0); Dean's List; Teaching Assistant for Software Engineering
- Related Coursework: Software Principles/Patterns, Software Testing, Databases, Big Data Systems, UI/UX, Machine Learning

## WORK EXPERIENCE

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### Quantum Inventions (Smart Transport SME acquired by Continental)

Singapore

*Software Engineering Intern*

May 2023 – Jul 2023

- Led development of a scalable UI plugin framework for fleet data web apps, enabling 3rd party clients to create and integrate custom dashboards in our apps and reducing support workload for 20 internal developers by est 15 hours per week
- Introduced micro frontend architecture using **Webpack Module Federation** and sandboxed plugins using iframes to support dynamic rendering of external plugins with a decoupled and tech-agnostic approach
- Collaborated cross-functionally to build a plugin deployment system with **AWS S3**, for 10+ client companies to submit plugins
- Implemented a Plugins API in **TypeScript** and a React components library using **npm** and **Rollup**, allowing 30% faster plugin development, while optimizing UI performance and bundle size

### Makino Asia (Machine Manufacturing MNC)

Singapore

*Software Engineering Intern*

May 2022 – Aug 2022

- Developed a machine performance analysis dashboard in **JavaScript** and **C#** with **ASP.NET MVC**, optimizing algorithms for processing of multi-dimensional data streams from IoT sensors with 600 data points per minute
- Implemented graph visualizations and customization tools for diagnostic analysis, reducing fault diagnosis time by 80%
- Deployed software on IIS staging servers to facilitate continuous user feedback loops, enhancing overall software quality

### Vibefam (Fitness Studio SaaS Start-up)

Singapore

*Freelance Full-Stack Engineer*

Oct 2021 – Dec 2021

- Revamped the calendar scheduling feature by implementing 2x faster and paginated **Cloud Functions** in **Firebase**, creating a responsive calendar frontend in **Vue.js**, and writing unit tests in **Jest**, increasing feature adoption by 100+ fitness studios

## PROJECTS

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### Artisan: AI-Powered Webpage Generator for Marketing and Portfolio Sites | [Website](#)

- Led a team of 4 to create an AI site generator in **Next.js** & **tRPC** with customization & code exports to speed up UI dev by 10x
- Built a code contribution system with pre-configured **React** and **Tailwind** theming APIs featuring an in-app JS code editor
- Achieved Best Project Award for 23<sup>rd</sup> STePS (CS3216) and NUS SoC Innovation Prize, attracting over 1000 visitors in 3 months

### Senior Developer for RepoSense: Open-Source Code Contributions Analyser | [GitHub Repo](#) | 10K users, 80 contributors

- (2024) Mentored a team of 4 junior devs in releasing v3 of RepoSense with code portfolios support and better customization
- Led **JUnit** & **Cypress** test coverage improvement, **TypeScript** migration, and componentization by reviewing 120 pull requests
- (2023) Improved code authorship analysis for multiple large **Git** repositories using **Java** and **Gradle**, helping teaching staff visualize author breakdowns in group projects on a **Vue.js** dashboard, used by 800+ students yearly with daily deployments

### Contributor to date-fns: Open-Source JavaScript Date Utility Library | [Pull Requests Merged](#) | 3.1M users, 400 contributors

- Enhanced Duration support and added **TypeDoc** documentation generation for aliases through proposals and pull requests

### PulsePace: Online Multiplayer Rhythm Game for iOS | [GitHub Repo](#)

- Created a modular and extensible real-time multiplayer rhythm game in 6 weeks: built input system with command pattern, multiplayer game mechanics, and networking layer with pub/sub and adapter patterns using **Swift** and **Firebase Realtime DB**

## SKILLS

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**Languages:** TypeScript, JavaScript, Java, Swift, Python, HTML, CSS, C, C++, Go

**Frameworks/Tools:** React, Next.js, Node.js, Express, NestJS, Flask, PostgreSQL, MongoDB, Docker, AWS, Git, Unix

**Other:** REST APIs, JSON, SQL, NoSQL, Microservices, WebSockets, TDD, Agile

## LEADERSHIP ACTIVITIES

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### Frontend Lead | Google Developer Student Club NUS

Aug 2023 – Present

- Directed a team of 9 to create a **Next.js** app to automate management tasks for a sustainability NGO with 50k volunteers
- Established and maintained frontend architecture for 40k lines of code and enhanced dev productivity by optimizing CI/CD