

## WORK EXPERIENCE

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### TikTok - Software Engineer Intern, Web Infrastructure

Aug 2023 - Present

- Led implementation of an ecosystem that streamlined construction and release of configuration files (JSON) with a low code mechanism. This optimized release workflows and crucially addressed the problem of release overwrites with branching capabilities. Wrote various tree-translation algorithms to convert between JSON and domain specific languages (DSL).
- Designed and implemented crucial services that enable projects in our team to move towards a unified permissions system. Achieved consistent typing across client-server by using Apache Thrift (code generation) and enhanced system resilience by implementing automated retry logic.
- Supported on-call operations to aid teams in debugging processes during a critical company-wide project involving migrating/isolating data centers in some regions, resulting in a smooth execution of the project.

### TikTok - Software Engineer Intern, Product

May 2023 – Jul 2023

- Orchestrated design and execution of multiple crucial migrations, including adoption of a new package manager (pnpm) and web framework (ModernJS), resulting in overall system performance improvements and 100% compliance adherence in Q2.
- Mitigated technical debt strategically by incrementally refactoring crucial parts of codebase. Adopted best practices to create modern, performant, and reusable React components, resulting in a significant enhancement in code quality and maintainability.
- Delivered informative presentations on complex technical topics, including ReactJS internals (renderer) and modern state management, showcasing in-depth knowledge and expertise in these areas.

### Binance - Software Engineer Intern, Product

Dec 2022 - Apr 2023

- Spearheaded design and implementation of a comprehensive new onboarding flow for Binance Merchants, spanning a quarter-year duration. Collaborated closely with diverse stakeholders, facilitating productive discussions and negotiations to ensure alignment. Achieved remarkable results, with new onboarding flow driving a notable 66% quarter-over-quarter surge in merchant transaction volume.
- Authored comprehensive documentations for critical components of internal libraries, such as client HTTP library, utilized across more than 100 projects (monorepo) at Binance, enabling seamless collaboration and knowledge sharing.
- Proposed and implemented gradual adoption of a modern state manager (Zustand), leading to better performance and a potential reduction in state management bundle size of 90%.

### National University of Singapore - Undergraduate Teaching Assistant

Jan 2023 - Apr 2023

- Taught a module titled Introduction to Object Oriented Programming in Java.
- Managed and collaborated with other tutors to deliver weekly tutorials for a class of 20 students, fostering a collaborative and interactive learning environment.
- Achieved a top 10% teaching rating of 4.7 / 5.0 in the School of Computing, demonstrating exceptional instructional skills and mastery over taught topic.

## PROJECTS

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### Space

May 2021- Aug 2021

### MongoDB, Mongoose, ExpressJS, NodeJS

- Developed a Flutter application that enables users to save and share memories associated with locations, using Google Maps SDK for geospatial functionalities.
- Implemented JWT authentication and facilitated file uploads (S3) through a ExpressJS service.
- Designed schemas with Typegoose and implemented supporting CRUD operations with data validation (ValidatorJS) and tests (Jest).

## EDUCATION

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### National University of Singapore

Aug 2021 - Apr 2025

### Bachelor of Engineering in Computer Engineering

- Relevant Coursework: Computer Engineering Principles and Practice(A), Object Oriented Programming in Java(A), Software Engineering (A-), Database Systems(A-)

## TECHNICAL SKILLS

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- Experienced Languages: C/C++, TypeScript/JavaScript, Java, SQL, HTML, CSS
- Technologies: MongoDB, ExpressJS, ReactJS, NextJS, GraphQL, PostgreSQL
- Tools: Jest