

# Regina Liu

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## WORK EXPERIENCE

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### Bebop (Wintermute)

Singapore, Singapore

*Front End Engineer*

*May 2023 – current*

- Worked on a portion of the internal component library with React and built custom TypeScript types for reusability and composability as part of moving towards a more maintainable codebase.
- Optimized performance of UI by implementing virtualization, performing API call batching, reducing bundle sizes and various smaller techniques.
- Enhanced codebase quality by introducing E2E testing with Synpress (based on Cypress) with support for Metamask in CI/CD checks and migrated the build and testing tooling to a more advanced and DX-friendly stack.

### Meta (Facebook)

London, UK

*Front End Engineer Intern*

*May 2022 – Jul 2022*

- Implemented video call features, i.e. volume, mute, raise hand, Zoom DTMF in an internal meeting discovery tool with backend interactions via GraphQL and internal middleware for codec-based communication.
- Improved codebase quality by implementing ESLint rules, i.e. alphabetizing CSS styles, ensuring a specific order of CSS-in-JS, prevent zero-index access in arrays.
- Worked extensively with React, Relay, internal styling tools and Hack, an advanced adaptation of PHP.

### Grab

Singapore, Singapore

*Infrastructure Engineer Intern*

*Sep 2021 – Dec 2021*

- Worked with Python, bash scripting, OAuth and AWS technologies to build an LDAP system for onboarding new developers by granting software access with automatic evaluation of team, role and level.
- Worked on case-by-case incident diagnosis and recovery management with regards to cloud infrastructure (i.e. AWS, Azure and in-house CI/CD deployment tool) and developer tooling.

### Mask Network (Sujitech, LLC)

Singapore, Singapore

*Software Engineer Intern*

*May 2021 – Aug 2021*

- Wrote smart contracts for the Ethereum mainnet using Solidity for a social token initiative.
- Refactored code to optimize function call durations and reduced gas consumption by 2200+ gas units.
- Added a suite of unit test cases using TypeScript, Mocha and Chai via Ethereum's Waffle testing framework.

## SKILLS

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**Programming:** Python, TypeScript, JavaScript, Rust, PHP

**Technologies:** React, Node.js, Flask, MySQL, AWS, Git, Kubernetes, Docker

## EDUCATION

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### Singapore Management University

Singapore, Singapore

*B.Sc. in Information Systems*

*Aug 2019 – Jun 2023*

## AWARDS & ACHIEVEMENTS

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**VMware Tanzu Award (May 2021):** Led team of six to rank 1st out of 80+ groups in cohort for best cloud native project using Docker, RabbitMQ and Kong for an API Gateway to build a mock integrated university applications portal.

**Ellipsis Coding Challenge (Mar 2021):** Ranked 3rd out of 162 students in a data structures and algorithms contest.

## PROJECTS

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### Final Year Research (2023) — Identification of errors in C with the help of Rust translations

- Conducted a 4-month research investigating the state of current C to Rust translation tools, and categorized the errors that emerge from running the Rust linter and compiler on the Rust output.
- Obtained samples for training a machine learning model via building a C-to-Rust mapping automation tool, and formulated a high-level categorization of translation and non-translation errors for the ML purposes.

### Credit Suisse, Inspire Women In Technology (2021) — The Objective App

- Among 8 students selected for mentorship by Credit Suisse Singapore to develop a goal-tracking app.
- Developed an iOS-mobile app using React Native, TypeScript and Expo SDK.