Bing Yu Yap

+65 8882 0906 | Singapore, SG | bingyu.yap.21@gmail.com

github.com/bingyuyap | linkedin.com/in/bingyuyap | bingyuyap.com

EDUCATION

Bachelors of Science, Computer Science, Singapore Management University — Aug 2020 — May 2024

- GPA 3.94/4.0 — Dean's List AY 2020/21, On Track for Summa Cum Laude
- Relevant Coursework: Collaborative Software Development, Database Systems, IT Solution Architecture

WORK EXPERIENCE

DeGods NFT — Jun 2022 — Present
Backend Engineering Lead — *Los Angeles, CA (Remote)*

- Led the backend development for y00tsNFT scholarship and approval process to facilitate reviewing and approving applications for an NFT mint, used by over **34,000 applicants** and **30 reviewers** over **2+ weeks**.
- Built twitter bot to post scholarship approvals for marketing purposes, resulting in market cap increasing by **50MM USD**.
- Built the minting app backend for t00bs, which generated **6MM USD** trading volume on the first day post mint.
- Devised an in-house payment system using **Express.js** to automate sending transactions involving SOL and Solana Program Library (SPL) tokens like USDC and DUST, used for splitting royalties and sending weekly payslips.
- Further improved the payment system to ensure **guaranteed transaction** by overcoming network failures using a retry and exponential back-off system.

ByteDance/TikTok — Dec 2021 — Aug 2022
Backend Engineering Intern — *Singapore, SG*

- Optimized the performance of batch adding keywords feature by **95%** using **concurrency in Go**, increasing the capacity of keywords addable per import from **2,000** to **50,000** words on the sensitive word management platform.
- Improved the performance of exporting keywords feature by **85%**, reducing the wait time by **10 minutes per export**.
- Rewrote and streamlined the sensitive text approval system to prevent policy conflict between different applications and between different regions to enable higher efficiency in the process.
- Designed and built a set of microservices for text normalization and text detection, which handles **5,000 queries per second** and is used across the department to reduce development cost and to improve scalability.

Solana.FM — Jul 2021 — Nov 2021
Backend Engineering Intern — *Singapore, SG*

- Designed a hosted service in **.NET** to publish unindexed Solana blocks to **RabbitMQ** which is then consumed by the block indexer written in **Rust**.
- Further optimized the hosted service's efficiency by **3,000 blocks per minute**.
- Optimized block indexer to improve the indexer's efficiency by upgrading from Diesel to pure **Rust** and **Tokio-postgres**.

PROJECTS

Backend Engineer, Bank Transaction-Rewards System (github.com/bingyuyap/cs301-project) — Aug 2021 — Nov 2021

- Created a highly performant service that processes **1,080 bank transactions per minute** and rewards credits to users with minimal delay using **Asynchronous**, **Parallel Programming** and **Database Denormalization**.

Backend Engineer, Dash (github.com/CS203-G1/roster-service) — Aug 2021 — Nov 2021

- Utilized **Google's CP-SAT Solver** to automatically schedule employees' roster timings (NP-hard problem) to ensure COVID-19 restrictions are followed, using **Java, Spring Boot**.

SKILLS

Programming Languages	Java, C, C++, C#, Go, Rust, Python, JavaScript, TypeScript, SQL
Frameworks	Spring Boot, .NET, KiteX, Express.js, Ruby on Rails
Technologies	Git, GraphQL, RabbitMQ, Heroku, Docker, MongoDB, MySQL, PostgreSQL, Jira AWS (EC2, Fargate, SQS, Lambda)