Bing Yu Yap

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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

Dust Labs　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　Oct 2022 - Present
Backend Engineer　　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Santa Monica, CA (Remote)*

- Building a **Gin** backend server to automate the infrastructure creation for the suite of software applications clients chose. Server was built using the **Domain Driven Design** approach to ensure code flexibility and maintainability.
- Led the backend development of y00ts explorer to aggregate real-time on-chain data of the y00tsNFT collection, i.e., mint addresses of minted NFTs and floor price of each trait in the collection.
- Optimized the response time of backend service by **90%** using **Amazon ElastiCache for Redis** to cache real-time data while ensuring data consistency across multiple clusters.

DeGods NFT　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　Jun 2022 — Oct 2022
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**.

SKILLS

Programming Languages	Java, C, C++, C#, Go, Rust, Python, JavaScript, TypeScript, SQL
Frameworks	Spring Boot, .NET, KiteX, Gin, Express.js, Ruby on Rails
Technologies	GraphQL, RabbitMQ, MongoDB, MySQL, PostgreSQL, Redis, Git, Jira
	Docker, Kubernetes, Tilt, AWS (EC2, Fargate, SQS, Lambda), Cloudflare (R2, Workers)