

Ivan Ho

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WORK EXPERIENCE

- **Dots (YC S21)** San Francisco, CA
Software Engineer #2 Jan 2024 - Present
 - **Product Engineering:** Developing end-to-end features by providing a robust API and UI for clients to make payments and payouts, while also ensuring thorough compliance and monitoring.
- **Open Government Products** Singapore
Senior Software Engineer Jan 2022 - Jan 2024
 - **Cloud Infrastructure:** Rearchitected and developed cloud infrastructure for the national coupon parking system (ParkingSG) on AWS via CDK and added robust monitoring with DataDog and Cronitor. Increased system maintainability with reduced debug time of at least twofold. The system facilitates over 50k parking sessions daily.
 - **Payment Infrastructure:** Built payment infrastructure for the national voucher distribution system (RedeemSG) which facilitates payouts to merchants with an average daily transaction volume of ~1 million SGD using AWS Batch, EventBridge, Lambda, and API Gateway via CDK. Implemented thorough audit checks and monitoring to ensure correctness of transactions and settlements.
 - **Merchant Integration:** Led integration of RedeemSG with the nation's 6 largest supermarket chains and developed key features like API access design, idempotency protocol, and financial reconciliation.
 - **Mobile Development:** Maintained and developed features for both RedeemSG & ParkingSG React Native mobile apps. Tracked issues, investigated bugs, and made releases via App Store/Google Play/Microsoft CodePush.
 - **Analytics & Automation:** Built Grafana dashboards and wrote SQL queries to track key product metrics. Utilized Selenium to automate snapshotting of selected dashboards to make load time instantaneous.
- **Alphalab Capital** Singapore
Software Engineer Intern May 2021 - Jul 2021
 - **Trading Infrastructure:** Integrated existing trading infrastructure (Python) to new cryptocurrency exchanges for low latency quote retrieval and trade execution. Optimized several parts of infra-to-exchange interactions with A/B arbitration and hot code path analysis with Cython.
 - **Internal Tooling:** Built internal tools to manage core trading entities with React, Express and PostgreSQL.
- **HeadsUp** Remote, Singapore
Software Engineer Intern #1 Dec 2020 - Feb 2021
 - **Cloud Infrastructure:** Migrated entire tech stack from AWS to Heroku to expedite development speed.
 - **Data Integration:** Implemented end to end data source to destination sync feature with Next.js frontend and Flask + Airflow backend. Data integrations include Snowflake, Redshift and BigQuery.
- **Canoo** Los Angeles, CA
Software Engineer Intern Aug 2019 - Mar 2020
 - **Internal Tooling:** Built a vehicle monitoring platform from scratch with React, Serverless framework on AWS.
 - **Data Pipelines:** Constructed data pipelines from vehicle to cloud with AWS IoT Core, Lambda and DynamoDB.
- **PayPal** Singapore
Software Engineer Intern May 2019 - Jul 2019
 - **Compliance Testing:** Wrote rigorous functional tests for validation of compliance decisions with TestNG.

PROJECTS

- **Claims Automation:** Reduced company's claim process time by 80% via automation using Slack APIs and Selenium.
- **Data Management:** Built an internal platform to manage administrative student data used by 500+ hostel residents.

PROGRAMMING SKILLS

- **Languages:** JavaScript, TypeScript, Python, SQL **Technologies:** AWS, Express, React, React Native, Selenium

EDUCATION

- **National University of Singapore** Singapore
Bachelor of Computing (Honors) in Computer Science Aug. 2017 - Dec. 2021
 - Distinction in Database Systems Focus Area
 - Teaching Assistant for CS2030 Programming Methodology II
 - Varsity Floorball Team, Sheares Hall Floorball Captain & Web IC

***Work Authorization:** Singapore Citizen; Eligible for the H-1B1 Singapore Visa which has a separate quota from H-1B