# Sung-Yan Hsieh

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#### EDUCATION

### University of California San Diego

La Jolla, CA

Master of Science in Computer Science

Sep. 2021 - Dec. 2022

#### SKILLS

Programming Languages: JavaScript/TypeScript, HTML/CSS, Python, Golang, Java, Haskell, PHP, SQL Web General: React, React Native, Next.js, Node.js, Flask, Express, Axios, Chakra UI, jQuery, BootStrap Database: NoSQL(Firebase, MongoDB), MySQL

Tool: Git, Shell, Linux, RESTful APIs, AJAX, JSON, gRPC, AWS, Docker, CI/CD, LaTeX, Markdown, Figma

## Industry Experience

### Software Engineer Intern

June 2022 - Sep. 2022, Jan. 2023 - Current Burlingame, CA(Remote)

Amotions Inc.

Full-stack development on a standalone app in the Amotions monorepo.

- Collaborated with an engineering team to develop a landing page and an interactive training portal using React, Next.js and Chakra UI targetting 600+ customers.
- Optimized user experience by providing tier-based subscription, personalized, and daily-updated content based on their interests.
- Built a scalable admin tool to aggregate exportable 5000+ practice activities using TypeScript and NoSQL technologies(Firebase).
- Accelerated the loading efficiency of multiple components up to 30% by refining asset file format and incorporating performance-related React hooks.
- Established a prototype system of user subscription trials for the startup, mentored 5 interns during the onboarding process with detailed documentation and explanation. Formalized the development flow on testing and releasing environment with CI/CD integration.

#### PROJECT EXPERIENCE

### $\mathbf{BearMaps} \mid \mathit{Java}, \; \mathit{JUnit}, \; \mathit{OpenStreetMap} \; \mathit{API}$

April 2021 - July 2021

• Implemented the K-D Tree, Priority Queue, Trie and A\* algorithms for a Java web mapping application allowing users to query routes between nodes, rastering the resolution of map, and autocomplete searching/navigation within the Berkeley area.

#### SurfStore | Golang, gRPC, Cloud-based, Raft

Feb. 2022 - March 2022

• Launched a cloud-based fault-tolerant distributed network system providing file storage syncing service with versioning feature via gRPC that utilized Raft protocol to ensure the system consistency regardless of server failures by Golang.

Hash | *Haskell* Nov. 2021 - Dec. 2021

• Introduced a shell written in Haskell with REPL interface and supports features such as parsing/evaluating user-defined program, predefined Linux program execution(cd, ls), persistent history storage and tab-based autocomplete.

Stock Tracker | React, CSS, BootStrap, TypeScript, Finnhub API, Apexcharts API

Nov. 2022 - Dec. 2022

• Established a BootStrap styling stock tracking dashboard with features including add/remove stock list and price history chart with different time scale resolutions.

#### Blur The Background | HTML/CSS, JavaScript, Tensorflow.js, Canvas API

July 2021 - Aug. 2021

• Achieved user background blur-effect in the real-time video processing by using the pre-trained Tensorflow.js models and drawing graphics with Canvas API in the static website.

#### PM2.5 Detector | Java, Arduino, Android Studio, Blender

Nov. 2017 - Dec. 2017

- Developed an Android application with intuitive UI design using Java and connected it with an Arduino sensor(PMS3003) by Bluetooth module that provides continuous update for air quality data syncing to mobile apps.
- Designed the sensor embedded air box model in Blender and constructed with 3D printing technique.
- Managed tasks with other two group members by organizing the project into design, develop and marketing proposal components.

### Computer Security - BabelWrap | JavaScript, Node.js

April 2022 - June 2022

• Proposed a compiler run-time based control tracking mechanism that works in conjunction with a per package permission system using Proxy to ensure Node software supply chain.