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Carney Cheng

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SKILLS

LANGUAGES: Python, Java, C#, Node.js, TypeScript, JavaScript

FRAMEWORKS AND SERVICES: Express.js, React, VueJS, Docker, Kubernetes, Google Cloud, AWS, GraphQL

PARADIGMS: Distributed System Design, Object-oriented Programming, Test-Driven Development, Agile Development

EXPERIENCE

SENIOR SOFTWARE ENGINEER | Mediconcen — Sep 2020 - Mar 2021

- Led a 4-person team to develop insurance claim and clinic management services, in **Go**, **Python** and **Node.js**.
- Created and designed an OAuth and Single sign-on platform for third-party integration, currently used by 3 major insurance providers to manage and issue patient credentials, insurance policies and claims.
- Designed and revamped legacy systems to use a distributed architecture using **Docker** and **Kubernetes**, enabling easier environment segregation, improved scalability and increasing application throughput by 1200%.

WEB DEVELOPER | Webs s'up — Apr 2019 – Jul 2020

- Led a 3-person team to develop Document Parsing System with a **TDD** cycle which resulted in an improvement in report accuracy by 30%, and reduction of monthly report processing time from 14 days to 1 day.
- Reduced image parsing time by 90% by developing an algorithm for running post-processing and OCR services in bulk concurrently with dispatcher pattern, using **Google Cloud Functions**.
- Implemented a system capable of handling a 1000 document input parse under 2 minutes versus the requested 30 minutes time-frame.
- Created **test-suites** and **CI/CD** pipelines, increasing system stability and halving release cycle.

FREELANCE DEVELOPER | Tigod — Jun 2015 - Apr 2019

- Created a system in **C++** for storing and redistributing tick data from forex brokers, with a < 1 ms latency.
- Developed a back-testing suite in **Python**, which simulates forex trading with an interface for testing custom strategy with historical tick data.
- Optimized trading algorithms by using **Machine Learning** with ensemble and decision tree for predictive analysis with **Python** and **scikit-learn**.

PROJECTS

DOCUMENT COMPARER | Typescript, Functional Programming, Google Cloud — Feb 2020

- Implemented as **micro-services** using **Google Cloud Functions** and **Firestore**, with asynchronous communications facilitated by **Google PubSub** and **Firebase Cloud Messaging**.
- Created a Photoshop like UI for specifying key areas in PDF for the initial training of Object Detection Models, using **SVG** with **React** and **Redux**.
- Developed an algorithm for extracting key-value datas from tabular images, by calculating and combining vertices from Google OCR and **AutoML Vision Object Detection** results.

EDUCATION

AUSTRALIAN NATIONAL UNIVERSITY — SEPT 2016 - DEC 2018

B.Eng in Software Engineering | Incomplete