Victor Siu

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Education

University of California, San Diego / Computer Science - GPA: 3.8 June 2021 - December 2024
- Classes: CSE 221 (Operating Systems), CSE 176 (Quadcopters), CSE 132A (Database Optimization)
- Organizations: Triton Software Engineering - Engineering Manager for MERN app for a nonprofit, SDCTA
  - Using React, Typescript, and Express.js to give SDCTA revenue for selling tax metrics

Experience

DocuSign / Platform Software Engineer Intern June 2023 - September 2023, San Fransisco, CA
- Synchronized internal Salesforce objects between production and development sandboxes with a Node.js application hosted on AWS Lambda, replacing a tool costing $60k annually, and saving dozens of hours of engineering time.
- Created a monitoring system with Datadog for metrics and monitoring, rotated application secrets with AWS Secrets Manager for security, and built the AWS Lambda function with Terraform for ease of upkeep and version control.
- Worked in an agile environment with QA testers, code reviews, and sprint planning to ensure on-time delivery of quality code with JEST tests, and carried out UAT and Hypercare afterward to fully offboard the project.

First Republic Bank / Software Intern June 2022 - August 2022, New York, NY
- Automated system for user provisioning using Python on Snowflake, saving hours of engineering time each month.
- Aided in test migrations to AWS Aurora by testing data retrieval from various services, reducing concerns about compatibility.
- Built a React-Flask app utilizing SnowSQL to show users' existing roles on the Snowflake platform, significantly lowering the number of requests for new roles, and hosted with AWS Lightsail.
- Automated baseline rule verification on Snowflake with Pytest, saving the lead engineer an hour quarterly.

Gordian Software / Software Intern June 2021 - August 2021, Remote
- Designed and implemented four command-line interfaces using Python to get obfuscated XML data from various airline APIs, and transformed that data into JSON for further analysis, connecting Gordian's APIs to new airline offer information.
- Analyzed airline-specific price irregularities over different currencies and developed a Python library to correct them, resulting in prices accurate down to the nearest half-dollar for most of Gordian's supported airlines.
- Developed a testing suite with Pytest while rewriting an internal library, ensuring backward compatibility.

Google / Software Intern December 2019 - June 2020, Remote
- Scraped car-dealing websites with Python and analyzed the car data to sort into different SQLite tables in real-time.
- Created a Flask backend to recommend cars a user may be interested in and supported multiple metrics for user queries.
- Utilized a minimalistic React frontend to display the cars and dynamically rank vehicles that the user likes.

Projects

Fault-Tolerant Distributed File Store
- Designed a sharded file store with Go using gRPC and RAFT, allowing for a file store with high availability, replication, and scalability with reads and writes.

Sharded Database
- Designed a sharded database with Go as a two-phase-commit scheme made up of RAFT clusters, allowing for a database with high availability, replication, and scalability with reads and writes.
- Hosted the database on Docker containers using Terraform for ease of use and testing.

Skills/Certifications

Languages:
Proficient: Python, Go, Javascript/TypeScript
Familiar: C, Java, C++

Software Development:
Proficient: Docker, gRPC, Git, Agile, Linux/Unix, React.js, Salesforce,
Familiar: Testing (Pytest/JEST), Datadog, Snowflake, Terraform

Certifications:
AWS Certified Cloud Practitioner: August 2022 - August 2025 - Proficient with EC2, Lightsail, Aurora, Lambda