Gavin Chen

New York, NY 10002 | Lead Software Developer | 7+ years of experience

Extensive background in architecting and scaling secure, high-performance systems. Well-versed in cloud-native technologies with experience in small to enterprise sized cloud provider environments. Experienced in developing high-performance teams.

WORK EXPERIENCE

Capital One; Lead Software Developer on Credit Card Fraud Team| June, 2024 – Current

New York, NY

- Lead software engineer on credit card fraud team leading an agile team of 12 developers building the API to process customer remediation for the 5th largest bank in the US. Architected the new serverless API built on AWS Step Functions, Lambdas, and Dynamo DB to create a fault tolerant distributed workflow engine servicing thousands of fraud claims per day and decrease fulfillment time by 85% for most cases
- Leveraged Domain Driven Design and hexagonal architecture to improve flexibility of our fulfillment workflows. Developed reusable actions to simplify the fulfillment process and decreased implementation time of business logic to 1/3 of previous timeline. Rapidly on-boarded MasterCard, Visa, and Discover workflows onto the platform which reduced manual resolutions by 12% across all channels.
- Drove adoption of behavior driven testing, automated testing, regression and contract testing, and protobuf code generation for external API's which decreased bugs in production by 40%.

Senior Software Developer on Risk Platform | Feb, 2023 – June, 2024

- Cloud Engineer on the internal Risk Platform team developing features maintaining infrastructure of our Python ETL pipelines. Hundreds of pipelines aggregated data across the enterprise through Snowflake, Postgres, and internal file stores to perform analysis and display hundreds of millions of data points in a central dashboard. Data analyzed with Pandas and Rust and accessed through Django API hosted with AWS ECS running Linux Docker containers and self-serve Snowflake tables, used by several thousand daily users including top executives and the CTO.
- Led the design and adoption of an internal Python library which integrated into our serverless AWS Fargate platform to report on metrics and intelligently react to data discrepancies. Architected the library and stood up infrastructure in Snowflake, PagerDuty, Splunk and Quicksight to operate at scale on hundreds of pipelines processing 10+TB of data per day. Spearheaded adoption across department of 50+ engineers while managing iterative agile development.
- Implemented resiliency practices and multi-region fault tolerance to achieve platinum resiliency status. Implemented a distributed architecture and automatic CI/CD through Jenkins, leveraging Route 53 for dynamic DNS management and monitoring with AWS CloudWatch which improved response times by an average of 65%

Linode LLC (acquired); Cloud Software Developer on Storage Team| Jan, 2021 – Jan, 2023

Philadelphia, PA

- Software engineer on the Storage team helping to manage 500+PB of S3/object, block, and backup storage options. One of 55 engineers working as direct competitors to AWS in the cloud space. Developed the Python, Perl, and Coldfusion code which ran the virtualized server and storage products. Integrated testing frameworks and automated deployment to create a CI/CD pipeline in Docker and Jenkins which deployed products across 8+ global datacenters
- Designed and executed a block storage migration effort to silently live migrate hundreds of millions of customer volumes onto NVME hardware. Moved 500+ PB of customer data using job queues, redundancy checks, and threaded workers to complete data movement in several weeks with no lost data
- Developed the network upgrade of our level 3 network layer between hypervisors and virtual nodes. Dynamically retrieved IPv6 addresses and assigned to millions of nodes based on region and subgroup

DICE at Jefferson Hospitals; IoT Cloud Software Developer | July, 2019 – Jan, 2021

Philadelphia, PA

- Developed HIPPA compliant IoT platform to be used across 32 Jefferson hospitals, tying in embedded sensors written in C to create a cloud network integrating real time updates. Worked alongside development team and external hospital personal to test and iterate the product in live Jefferson hospital rooms
- Worked directly with engineering department head and product design teams on product discovery and market fit. Point of contact between engineering team and Magee rehabilitation hospital, managing the continued relationship with them through our testing and evaluation cycles to drive dozens of new feature deployments
- Co-architected our distributed micro-service ecosystem running on GCP serverless instances and Docker containers, secured through private network/API key authentication, and accessed using event-driven GCP functions

(831) 515 -6028   Gavin575@gmail.com

EDUCATION

B.S Computer Science with Electrical Engineering | University of California Santa Cruz
Class of 2019
Specialization in software engineering and systems programming. Deans Honor List.

PROFICIENT PROGRAMMING SKILLS

Python | Rust | Typescript | Linux | C/C++ | JavaScript | Docker | MySQL | Jenkins | Perl | ColdFusion | Bash | AWS

ADDITIONAL PROJECTS

- Isograph.ai |Contributed to Rust open source framework which improves UI for data driven apps
- Wilde.ai | Contract work to stand up cloud infrastructure for a B2B AI customer retention product
- Unix Kernel | Contributed to the FreeBSD operating system kernel with modifications in process scheduling and page storage implementations
- AI researcher | Research project to generate simulated galaxies using Generative Adversarial Nets (GANs)
- Rocket Team Leader | Lead the Adaptive Aerobreaking team for UCSC Rocketry building a fully contained air brake system
- AI researcher | Research project to generate simulated galaxies using Generative Adversarial Nets (GANs)
- DIY 3D printer | Homemade 3D printer built from open source schematics

PERSONAL QUALIFICATIONS

- Experience outlining design constraints
- Strong communication and interpersonal skills
- Bilingual – English and Mandarin Chinese
- Time management skills and ability to work under pressure