Siman Shrestha

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Software Engineer (Fullstack)

Skilled Fullstack Software Engineer with four years of experience building and maintaining scalable backend services and frontend web interfaces. Proven track record in designing event-driven architectures and microservices that support millions of users. Adept at designing and building responsive user interfaces with industry-standard frameworks. Proficient at leveraging observability tools and cloud technologies to ensure scalability and reliability. Experienced in owning and designing features, reviewing code, and monitoring production systems.

Data Modeling | API Design | Caching | Observability | AWS | Event-Driven Architecture | Microservice Architecture Continuous Integration/Continuous Delivery (CI/CD) | Integration and Unit Testing | Agile Development | Communication

TECHNICAL COMPETENCIES

Languages & Frameworks: TypeScript, JavaScript, Python, Java

Databases: PostgreSQL, MySQL, MongoDB, Redis, MariaDB

Tools & Technologies: Git, Kafka, GraphQL, REST, HTTP, JSON, XML, NestJS, Node.js, React, Angular, Django, Spring

Boot, Linux, Docker, Kubernetes, Sumo Logic, DataDog, Sentry, Bull Queue, Swagger, Jest, Garden

AWS: Elasticahe, Key Management Service, Managed Streaming for Kafka, Secrets Manager, Identity and Access

Management

AI: OpenAI API, GitHub Copilot, Chat GPT

UI/UX: Figma, D3, Adobe XD, Adobe Illustrator, Adobe Premiere Pro

EXPERIENCE

Hinge Health | Austin, TX

Aug 2023 - Apr 2024

Software Engineer II

Maintained critical REST-based microservices handling personally identifiable information data for 30 million users at the leading digital musculoskeletal therapy clinic.

- Designed data models and REST APIs for a microservice that processes and serves sensitive data for 30 million patients. Utilized TypeScript, NestJS, PostgreSQL, AWS Elasticache Kafka, Redis, and Docker.
- Owned and led a project to decouple architecture. Cut event ingestion processing time by 40%, eliminated 1 million HTTP calls daily, and saved approximately 24 hours of processing time per day.
- Set integration testing standards and stabilized the CI/CD pipeline.
- Leveraged observability tools such as Sumo Logic, DataDog, and Sentry for debugging, alerting, and monitoring.
- Participated in and led team rituals, including code reviews, technical design reviews, retrospectives, and sprint planning.
- Led a hackathon team that delivered a production-ready proof-of-concept for envelope encryption of Kafka messages with AWS KMS, cutting out 100 million monthly HTTP calls, saving ~100 days of execution time, and \$600 per month.

Visa | Austin, TX Jan 2022 – Aug 2023

Senior Fullstack Software Engineer - Observability

Expanded observability capabilities for operations and infrastructure teams across the org.

- Implemented real-time API health monitoring dashboard for critical production API metrics. Built with React, Node.js, Golang, Redis, GraphQL, Prometheus, and Sumo Logic. Used daily by the Product Reliability Engineering team.
- Upgraded and deployed Grafana to an Enterprise version on Red Hat Enterprise Linux 7 on-premise servers. Integrated SAML authentication for SSO, migrated application data stored in a distributed MySQL cluster, and migrated load balancers for multiple data centers. Used by 1000 engineers.
- Designed a self-service platform with a role-based approval system to allow automated updates for a monitoring dashboard. Prototyped UI components with Figma and designed APIs. Reduced work for the team by 10 hours per month.
- Optimized application load from 10 MB to 10 KB per request by caching metrics in Redis and using WebSockets to broadcast data to subscribers.
- Enabled 500+ engineers to generate key metrics and alerts for app servers by maintaining an in-house Observability web application built with React, Node (Express), GraphQL, and MongoDB.
- Mentored interns and provided technical guidance for summer projects.

Visa | Austin, TX Oct 2020 – Jan 2022

Fullstack Software Engineer - Middleware

Developed a platform for Visa engineers to schedule asynchronous jobs.

- Automated scheduled remote job executions on targeted on-premise servers, saving engineers 10 hours per week. Accomplished by building a web application with Angular, D3, Java Spring, Python, Kafka, Quartz, and MySQL.
- Implemented real-time log output for remote job executions.
- Designed a responsive UI using Figma and implemented it with Angular for an on-premise container deployment platform.

Frogslayer | College Station

Sep 2019 - May 2020

Software Engineer

Maintained a cloud-based medical record system web application as the primary engineer.

- Delivered features for a cloud-based emergency record system utilized daily by 100+ medical personnel across three urgent care facilities. Constructed with Angular, MariaDB, Django (Python), and Vagrant.
- Designed UI components in Adobe XD, presented designs to stakeholders, and implemented in Angular.

• Speaker for informational and social events to encourage networking amongst 500 members.

CERTIFICATIONS

Academy Accreditation - Generative AI Fundamentals

Databricks

EDUCATION

Texas A&M University, College Station, TX

Bachelor of Science in Computer Science, Minor in Graphic Design

LEADERSHIP

Lead Communications and Engagement Chair, Visa Young Professionals ERG

Dec 2020 – Aug 2023