

PROFILE

Skilled software engineer leveraging emerging technologies to build scalable systems, optimize data pipelines, and deliver innovative, cost-saving solutions. Passionate about driving system reliability and efficiency through cutting-edge tools and cloud platforms.

**Work Authorization Requirements** : None - I am a US Citizen

EDUCATION

**Purdue University**, West Lafayette, IN — Bachelor’s of Science in Computer Science (May 2022)  
**Amazon AWS Solutions Architect Certificate** — In Progress - to be completed by December 2024

EXPERIENCE

**Software Engineer, Product at Striim; Palo Alto, CA + Remote** July 2023 - March 2024

- Accelerated product-led growth by building key micro-services, including a downtime detection system and a scalable analytics pipeline.
- Streamlined data analysis by creating robust data pipelines and analytics tools using Snowplow and GCP.
- Enhanced infrastructure reliability by maintaining an interaction analytics system with Terraform, ensuring seamless connectivity across GCP resources.
- Saved \$300K annually by developing a SlackBot-integrated alert system using Python and Boto3 to detect and notify about service failures.
- Reduced customer downtime by 2-3 days with a Python-based solution that integrated with SlackBot to monitor and alert on customer-side node failures.

**Software Engineer, Billing Operations at Twilio; San Francisco, CA** July 2022 - February 2023

- Improved customer data flow by driving analysis through a Kafka pipeline and optimizing workflows using Java 8 in collaboration with cross-functional product teams.
- Visualized 100+ product usage trends with Datadog, enabling Twilio Core engineering and product teams to make data-driven decisions.
- Prioritized billing pipeline tasks by participating in Agile and Scrum processes, including standups, sprint planning, backlog grooming, and cross-team meetings.
- Achieved \$10M annual savings by optimizing ingestion pipeline code with Spring JPA to merge and persist similar billing events efficiently.
- Streamlined data ingestion by building user-facing projects in Spring Boot and incorporating Amazon SQS as an alternative to Kafka.
- Optimized billing data infrastructure by integrating Elasticsearch indices into existing databases, streamlining data retrieval and enabling faster aggregation for analysis and insights.
- Onboarded and mentored interns, introducing them to the team’s core tech stack, deployment workflows, and tool usage for faster integration.
- Enhanced system reliability by instrumenting applications with New Relic to monitor performance and resolve bottlenecks in both development and production environments.

**CS18000 Head Teaching Assistant at Purdue University; West Lafayette, IN** May 2021 - June 2022

- Supported 700+ students by collaborating with core course faculty to develop accessible assignments, deliver weekly lectures, and provide ongoing semester-long guidance.
- Taught a comprehensive Java curriculum, guiding students from fundamental concepts like data types to advanced topics including file I/O, Lists, Trees, and Recursion.
- Streamlined assignment evaluation by creating assignments using a custom JUnit framework with reflection, Mockito, and Cucumber, ensuring adherence to guidelines and code variation compatibility.

**Software Engineering Intern at Genesys; Remote** June - August (2020 + 2021)

- Secured API interactions by designing and implementing a robust Java-based API endpoint security system, ensuring compliance with company standards for inbound and outbound access.
- Improved developer efficiency by creating an internal tool to scan endpoints, enabling engineers to identify endpoints and their respective owning teams.
- Mentored a first-year intern during the summer of 2021, providing hands-on guidance in using team tools and technologies to accelerate onboarding and project contributions.

TECH STACK PROFICIENCY

**Frontend Development:** React, React Native, Redux, Next.js, Vue.js, Tailwind CSS, SwiftUI,  
**Backend Development and Frameworks:** Spring Boot, Flask, Django, Combine, GraphQL, Node.js, Express, FastAPI, Dropwizard  
**Cloud Platforms & Services:** AWS (ECR, ECS, CloudWatch, EventBridge), GCP (BigQuery, Compute Engine, GKE, Looker), Firebase, Azure, CloudKit  
**Data Processing & Storage:** Redis, DynamoDB, Elasticsearch, Snowflake, Hadoop, Spark, Snowplow, Abacus, SQL, NoSQL, Airflow,, Presto/Trino, Redshift  
**DevOps & CI/CD:** Terraform, Docker, Kubernetes, Buildkite, Spinnaker  
**Message Queueing & Event Streaming:** Amazon SQS, Kafka  
**Monitoring & Analytics:** Datadog, New Relic, Clickhouse  
**Testing & Debugging:** Mockito, JUnit, Jest, Cucumber, GDB, Selenium  
**Hosting & Deployment:** Vercel, Cloudflare Workers  
**AI/ML Tools:** Llama3, Mistral, OpenAI API, CoreML, Tensorflow

PERSONAL PROJECTS

Social + FratPak

Co-founded an LLC focused on developing a mobile application using SwiftUI, Firebase, and JavaScript to cater to student communities, featuring functionalities such as event attendance tracking, guest management, and safety enhancement, successfully addressing privacy concerns during marketing to colleges, and ensuring its continued presence on the iOS App Store, serving as a compelling portfolio asset.

Journey

Developing a social media mobile app using a custom large-language model developed with Llama3 and a self-curated dataset to recommend travel destinations by analyzing user interactions with friends' posts and reviews, with plans to launch by the end of 2024

OpenAI Text Lookup

Developed and deployed a Flask-based application running on Vercel that allows a user to upload a file, select a portion of text, and then query the definition for that selected text using the OpenAI API.

Java Test Builder

Developed a Java framework to simplify test case writing and improve test portability with JUnit, gaining experience in Java and JUnit, and understanding the importance of test case writing for ensuring software quality.

XKDB Builder

Engineered a build tool to set up a GDB debugging session for XINU (a small, elegant OS for embedded systems that lacks a default GDB debugger) by injecting the debugger into the codebase, enabling standard GDB debugging on the XINU remote server.