

Vikram P.T.

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EXPERIENCE

Amazon

Seattle, WA

Software Engineer - Music Android App, Alexa SDK

Jan 2025 - Present

- **Rearchitected the Alexa SDK integration** by migrating to reactive Kotlin architectures, resulting in 17% lower memory usage, **86%** smaller codebase footprint, and **50%** higher feature development velocity.
- Redesigned the SDK's directive processing pipeline from batch to streaming, enabling incremental **agent response handling** and cutting p95 **time-to-first-response by 70%**.
- Spearheaded a **cross-team investigation** into an AWS Amplify SDK defect, authoring a fix that enhanced cloud-to-device music sync stability and reduced Alexa-initiated playback failures to **near 0%**.
- Improved launch reliability and Alexa-related crash rates by **90% QoQ** through establishing org-wide **engineering standards** covering A/B testing, asset sizing, and feature monitoring.
- Profiled the Android rendering pipeline and resolved optimization bottlenecks in the Alexa UI, delivering a **19x improvement** in frames displayed at 60+ FPS.

Software Engineer - Voice Experience Platform

Aug 2023 - Jan 2025

- **Drove +19.3M annualized listening hours**, +16.4M music discoveries, and +4.7M new release plays by engineering new input features for Amazon Music's **ML recommendation ranker**.
- Delivered **+2.3M annualized listening hours** by launching **LLM-powered playlist generation** for Alexa+ via orchestrated voice intent routing to an AI music recommendation service.
- Led the **migration** of a music voice recommendation engine to native AWS (ECS/Fargate), handling ~7,800 TPS worldwide with auto-scaling, rate limiting, and load testing, achieving a **zero-outage production launch**.
- Identified and resolved a latency bottleneck from redundant catalog lookups with an **ElastiCache layer**, cutting p99 latency and downstream traffic by ~80%.

SeekOut

Bellevue, WA

Software Engineer - AI-Assisted Recruiting & HR Platform

Feb 2023 - Aug 2023

- **Automated talent profiling** from unstructured candidate data using GPT-3, improving candidate-to-role match quality and driving a **40% higher click rate** on job recommendations.
- Built a data ingestion pipeline using Azure Durable Functions and C# for candidate profile processing, handling structured and unstructured profile schemas across 1000+ enterprise clients.
- Developed an authorization framework enabling granular, per-client feature flagging across 50+ features and controlled enterprise rollouts.

EDUCATION

University of North Carolina at Chapel Hill

- **M.Sc.** in Computer Science
- **B.Sc.** in Computer Science and Statistics

TECHNICAL SKILLS

- **Languages:** Java · Kotlin · Python · C# · TypeScript
- **Infrastructure:** AWS CDK · ECS · Fargate · ElastiCache · DynamoDB · Amplify · Cloudwatch · Route53
- **SDK & API Design:** Android SDK · Alexa SDK · RPC API design
- **Design Patterns:** Multithreading & Concurrency · Singleton · Factory · Strategy · Observable · MVVM
- **Developer Tooling:** Claude Code · Amazon Kiro · Git · Guice/Spring · JUnit · Mockito/MockK · Gradle · npm