

SUMMARY

Full-lifecycle Software Engineer with 6+ years bridging distributed backends to constrained consumer devices — web, biometrics, handhelds, and smart carts. Ships observable, CI/CD-driven solutions from MVP to production scale.

WORK EXPERIENCE

- Amazon - AWS

2022 - 2024

 - Led team to deliver a public, idempotent REST API for third-party enterprise identity verification using palm hover as input (Amazon One Enterprise). Engineered high-performance Java service with compliance-grade encryption (AWS KMS) for sensitive credential data such as customer palm images. Achieved sub-200ms p99 latency at 1000 transactions per second across 12 APIs.
 - Drove team to deliver a native Android/Kotlin App that integrates with Amazon One (AO) over a USB connection. Architected a resilient state machine to handle complex backend auth flows within the constrained Android UI, mitigating inconsistent states caused by intermittent connectivity — enabling merchants to verify customer 21+ eligibility on the connected device after a customer palm scan on the AO device.
 - Extended backend identity-mapping systems and Amazon One (AO) to support third-party payment credentials via secure on-device API — enabling Starbucks Gift Card checkout through palm verification.
- Amazon - Whole Foods Market

2018 - 2022

 - Drove \$40M in operational savings by delivering an Inventory Restocking web app for commercial-grade handheld scanners (Honeywell). Launched the MVP in 10 pilot locations and scaled to 500+ physical stores nationwide, processing forecasted replenishment quantities at scale. This was the first technical collaboration between Amazon and Whole Foods post-acquisition.
 - Negotiated expanded app workflow and API contracts with Product and UX. Architected and mentored team through delivery of an event-driven pipeline (SNS, SQS, parallel Lambdas) for real-time inventory suggestions. Implemented time-zone aware prioritization to guarantee 100% on-time delivery of forecasting data managed in DynamoDB.
 - Architected and delivered idempotent batch APIs and backend jobs that improved action latency by 90% by processing store sections over individual items — reducing payload sizes and network overhead. Greatly improved in-store app experience for associates in high-latency environments, with batch APIs scaling out to millions of items ordered daily.
 - Partnered with Payment teams to architect and deliver an automated payment lifecycle job using AWS SWF — from auto-charging at smart-cart zone entry through emailing receipts at charge settlement. This powered the "Just Walk Out" shopping experience for Whole Foods smart-cart customers.
- SPAWAR (US Navy)

2017 - 2018

 - Engineered infrastructure automation for Bell Boeing V22 Osprey Aircraft support systems. Created Ansible-driven deployment scripts to configure hosts as highly secured environments, including dynamic Layer 3 proxy routing and application firewalls. Reduced deployment time from hours to minutes across secured lab environments.

EDUCATION

University of California, San Diego	B.S. Joint Mathematics and Computer Science
	B.S. Cognitive Science <i>with specialization in Machine Learning and AI</i>

SKILLS

Engineering Domain	Distributed Systems, API Design, Backend-for-Frontend (BFF), Mobile Systems Design
Programming Languages	Java, Kotlin (Android), Python, JavaScript (TypeScript, Node.js), SQL, Bash/Zsh
Compute & Containers	AWS Lambda, Fargate, EC2, Kubernetes (EKS), Docker
Data & Storage	AWS DynamoDB, S3, Redshift, PostgreSQL, MongoDB, Redis
Events & Orchestration	AWS SWF, SNS, SQS, EventBridge, Kafka, RabbitMQ
Infra as Code (IaC)	AWS CDK (TypeScript), CloudFormation, Ansible
Delivery & Test (CI/CD)	CodePipeline, Canary Releases, Integration Testing, Load Testing, Code Coverage
Observability & Metrics	CloudWatch (Metrics, Dashboards, Alarms), Structured Logging, Distributed Tracing