

SUMMARY

Software engineer with 6+ years experience of bridging complex backend systems to constrained low-latency consumer interfaces, such as biometrics, handhelds, and smart carts. Delivers customer-driven solutions from MVP through production scale. Implements data-driven systems with end-to-end observability across mission-critical services.

WORK EXPERIENCE

Amazon - AWS

2022 - 2024

- Led team to deliver an external service endpoint for Amazon One (AO) Enterprise devices, enabling palm-based authentication for third-party enterprise clients using the AWS Console. Managed sensitive biometric data (Palm Images, Biometric IDs, Badge IDs) across internal systems while scaling to 1000 requests per second across 12 APIs.
- Drove delivery of a Kotlin-based Android App for Amazon One clients to verify customer 21+ eligibility through a palm scan. Worked with product and the AO framework owners to devise a user workflow that fit device constraints of the off-the-shelf Android device framework and the custom AO device. For example, extended views and functionality on the AO device based on its connectivity status to the external device.
- Collaborated across teams to add Starbucks Gift Card support to the Amazon One palm hover experience for fast checkout. Extended backend systems to map 3rd party identifiers, such as a Gift Card barcode, to internal biometric identifiers on-device through a secure API.

Amazon - Whole Foods Market

2018 - 2022

- Drove \$40M in operational savings by developing and rolling out an Inventory Restocking application running on commercial-grade handheld scanners (Honeywell), enabling store associates to scan and submit forecasted item quantities to vendors for replenishment. Launched an MVP in 10 pilot locations and scaled to 500+ physical stores nationwide. This was the first technical collaboration between Amazon and Whole Foods post-acquisition.
- Architected and mentored team through extensions for the Inventory Restocking application to have it proactively suggest items to store associates based on a stream of item forecasting events. Negotiated new app workflow and API contracts with product and UX, prioritizing delivery across MVP and production phases while scaling to millions of events daily without impacting store operations.
- Led design and implementation of smart dashcart checkout for "Just Walk Out" shopping. Delivered a workflow solution that auto-charged an account when customers entered a 'checkout zone' and emailed receipts upon store exit. Used serverless architecture to keep overhead at a minimum while maintaining app monitoring via observable metrics.

SPAWAR (US Navy)

2017 - 2018

- Engineered mission-critical infrastructure automation for v22 Osprey support, securing data environments via dynamic Layer 3 proxy routing and application firewalls. Reduced deployment friction while strictly adhering to defense-grade security standards.

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

Solutions	MVPs, Product Extensions, Full-Scale Performance Optimizations		
Collaborator	Engineering, Product, UX, Data and Quality Teams		
Languages	Java, Kotlin, Python, Javascript (<i>TypeScript, NodeJs, AngularJs</i>), Bash/Zsh (Linux CLI), Español		
Infrastructure	(Compute; <i>EC2, Fargate, Lambda, k8s, Docker</i>	Object Storage; <i>S3</i>	IaC; <i>CDK, Ansible</i>)
	(Database; <i>DynamoDB, PostgreSQL</i>	Warehousing; <i>Redshift, MongoDB</i>	DNS; <i>Route 53</i>
	(Events; <i>SQS, SNS, KAFKA, RabbitMQ</i>	Workflows; <i>SWF</i>	Networking; <i>VPC</i>)
Operations	E2E Structured Logs, Log Groups, Metrics, Alarms and Dashboards for app monitoring and KPIs		
Support	Incident Management via Runbooks, Ticketing Instrumentation and Escalation Response		