

SUMMARY

Designs, implements, monitors and maintains distributed applications across multiple layers of the tech stack.

TECHNICAL SKILLS

Languages	Java , Kotlin, Python, Javascript (TypeScript, NodeJs, AngularJs)		
Infrastructure Components	Compute (<i>EC2, Fargate, Lambda</i>)	Notification (<i>SNS</i>)	Object Storage (<i>S3</i>)
	NoSQL Database (<i>DynamoDB</i>)	Warehousing (<i>Redshift</i>)	DNS & Routing (<i>Route 53</i>)
	Networking (<i>VPC</i>)	Workflows (<i>SWF</i>)	Infrastructure as Code (<i>AWS CDK</i>)
Infrastructure Monitoring	AWS Cloudwatch Service - Logs, Metrics, Alarms, Dashboards Support Ticketing & Routing - Generation, Response, Management		
Dev Env	Linux, Android, GIT, VMWare/VirtualBox, Kubernetes/Docker		
Personal	Autonomous, Collaborative, Inquisitive, Systemic and Technical level perspectives		

ENGINEERING EXPERIENCE**Amazon - Amazon One**

Biometric Solutions that enabled users to make payments or send data to a business by hovering their palm.

AO Enterprise	Designed + implemented a public endpoint service for AO App to hit internal dependencies Ground-up feature that required deep application and security reviews within the organization Delegated across teammates to meet 4-month timeline for bringing up a working app Enabled encryption and secure communication protocols to ensure data integrity and confidentiality
Age Verification	Implemented a Kotlin Android App for AO customers to identify as 21+ at stadiums Designed end-to-end encryption for secure data transmission between Android devices
Starbucks	Extended base AO Android App for customers to pay with their Starbucks gift card
Leadership	Negotiated UX with Product Management to design requirements Mentored teammates in application extensions for new features and UX improvements Led teammates in writing backend extensions to add features and scale customer actions

Amazon - Whole Foods Dashcart Checkout

Backend	Designed backend service of complex dependencies between Amazon and Whole Foods Recommended re-use of existing components to reduce development time Maintained proper product visibility through meticulous app business metrics
Leadership	Split design into components to guide team-wide implementations Successfully parallelized development resources to meet delivery in an especially short timeline

Amazon - Whole Foods Inventory Restock

Application	Wrote a Javascript webapp for Store Associates to replenish store inventory daily Wrote backend service integrations with complex dependencies across multiple teams Enforced smooth rollouts system-wide through feature flags and code pipelines Maintained proper product visibility through meticulous app business metrics
Scaling	Launched pilot app in 10 stores, scaled out to over 500 stores nationwide Scaled backend processes to handle millions of item events daily Value Add: \$40M/yr in savings for improved store operations
Leadership	Designed multiple end-to-end solutions to guide team-wide implementations Mentored teammates in application extensions for new features and UX improvements

SPAWAR/SAIC - Deployment Process Architecting

Virtualize	Using VMWare to launch minimal RedHat instances in a local lab network Reducing the service deployment process and preserving software architecture
Network	Designed a layer 3 dynamic network configuration for proxies to route to new instances Configured application firewalls for increased network security Isolated service testing done by splicing local services into a functioning network
Scale	Wrote reusable and extendable deployment scripts in Ansible Designed with production and development environments in mind

Tureus - ETL Pipeline

Ingestion	Built Python service to consume data from private API and push to a Kafka topic Built Python service to consume data from Kafka topic and store to Postgres database
Schemas	Parameterized schema to filter relevant subset of 100+ data parameters Postgres schema easily extendable using Alembic library in Python
Deploy	Kubernetes deployment of Docker images for each component of the pipeline
Testing	Built NodeJS service to generate test data using client-provided JSON schema

RetailOps - Applications Developer

ETL	Implemented data pipeline from live RabbitMQ events to MongoDB Implemented data pipeline from a private API with multi-source data to MySQL
Backend	Extended backend API using custom Perl library Expanding Elasticsearch results to improve client search data exports Wrote NodeJS proxy media server to reduce media traffic directed at main servers
Data	Creation and extension of MySQL schemas used by backend code and client reports Wrote powerful macros and regular expressions to munge client data Developed client implementation process for catalog data conversion

EDUCATION

University of California, San Diego	B.S. Computer Science - Mathematics B.S. Cognitive Science (specialization in ML Computation)
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