

Engineering innovative platforms that scale seamlessly to support massive data volumes and mission-critical workloads

Experience

AMAZON WEB SERVICES (AWS) - Senior Software Engineer (L6) - OpenSearch - Palo Alto, California Sept 2022-Present

- Led global innovation of **AWS OpenSearch**, a **Tier 1** mission-critical service **generating \$B+** in revenue
- Built Query Insights, AWS OpenSearch's core analytics platform helping customers optimize search performance
- Engineered Intelligent Insights, an LLM-powered platform that reduced incident MTTR by 90% fleetwide
- Led in-place cluster upgrade, cutting upgrade time by 500% and reducing B/G deployments for 1000s of customers
- Built scalable AWS Glue + Spark pipelines processing TBs of telemetry for anomaly detection and trend analysis
- Shipped Hard Cancellation to eliminate zombie queries via pattern matching, cutting CPU/memory waste by 25%
- Developed Cluster Insights, an analytics and recommendation service for cluster tuning
- Delivered operations support and tooling for large enterprises, protecting \$B+ in critical workloads

VMWARE - Senior Member of Technical Staff - Platform Team - Palo Alto, California Aug 2019-Sept 2022

- Owned 30+ services in the [Uhana](#) platform, handling **10M+ EPS** ingest and **25M+ EPS** distribution globally
- Invented and [patented TCP Distributor](#) and built the [CRIC platform](#) for large-scale customer trials
- Migrated Uhana from Mesas/Marathon to Kubernetes/Helm to streamline deployments
- Built ELK logging across regions and enabled zero-downtime upgrades with high availability

UHANA (Acquired by VMWARE) - Senior Software Engineer - Palo Alto, California Aug 2019

INFORMATICA - Software Engineer - Cloud Platform Team - Redwood City, California Feb 2017-Jul 2019

- Enhanced the [Informatica Cloud Platform](#), improving core services used by all cloud customers
- Owner of V3API (next-gen [public APIs](#)), enabling seamless customer migration to cloud

INFORMATICA - Software Development Intern - Cloud Platform Team - Redwood City, California May-Aug 2016

Skills

Languages: Java, Python, Go, JavaScript, C++, Scala, R, Ruby, Rust**Frameworks/Tools:** Node.js, Angular, Express, Bazel, Jenkins, Docker, Kubernetes, Helm**Databases:** PostgreSQL, Cassandra, Redis, MongoDB, Elasticsearch, OpenSearch, DynamoDB**Big Data & Streaming:** Spark, Flink, Kafka, Hadoop, Hive, Storm**Cloud & DevOps:** AWS (Glue, S3, EC2, Lambda, Kinesis, SageMaker, CloudWatch), Prometheus, HAProxy**AI/LLM:** AWS Bedrock, SageMaker, Claude, OpenAI GPT

Projects

QUERY INSIGHTS - Flagship analytics powering observability for search queries in AWS OpenSearch Sept 2022-Present

- Architected backend and frontend for Top Queries, Query Grouping, Query Metrics
- Integrated OpenTelemetry to enable end-to-end visibility into query performance at a global scale

INTELLIGENT RCA SYSTEM WITH LLM INFRA - AI driven OpenSearch domain analysis platform Sept 2022-Present

- Built AI-powered domain analysis system using CloudWatch, S3 and OpenSearch for automated issue detection
- Used Bedrock (Claude) for natural language summaries and enabled AI Ops integration with chatbot

INPLACE UPDATES - Critical project to cut cluster upgrade time for AWS OpenSearch customers Sept 2022-Present

- Eliminated need for B/G upgrades during config changes, speeding updates across global OpenSearch clusters

UHANA PLATFORM - AI-based analytics platform to improve customer experience on 4g & 5g networks Aug 2019-Sept 2022

- Ingest data at 10 million eps and distribute at 25 million eps (Java, Python, Kafka, Cassandra)

TCP DISTRIBUTOR - Critical services to distribute large scale network telemetry data to multiple clients Aug 2019-Sept 2022

- Filtered, processed, and distributed data from cell towers to multiple clients in real-time at 25 million eps

ELK LOGGING FRAMEWORK - Set up logging framework for Uhana Platform on multiple continents Aug 2019-Sept 2022

- Used Elasticsearch, Filebeat, Logstash, and Kibana to set up logging spanning multiple continents

Conferences, Patents & Research

SPEAKER - Presented OpenTelemetry and observability strategies at OpenSearchCon Berlin May 2024**PATENT** - Designed the [patented TCP Distributor](#) for Uhana, VMware Nov 2020**RESEARCH PAPER** - Efficient and Secure Template Blinding for Biometrics [IEEE CNS Research Paper](#) Oct 2016

Education

Master of Science in Computer Science Aug 2015-Dec 2016University of Florida, USA 4.0/4.0 GPA