

AANSH SHAH

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SUMMARY

Security-focused Software Engineer specializing in ML infrastructure and distributed systems. Delivered \$4M+ in value by architecting enterprise platforms that reduced operational complexity by 50-97% across authentication, model deployment, and observability. Proven leader driving cross-functional initiatives across 40+ teams with zero security incidents.

PROFESSIONAL EXPERIENCE

Software Development Engineer, Amazon (Alexa, AGI)

Cambridge, MA | July 2020 – Present

- Architected OpenTelemetry-based observability platform that drove \$3.2M quarterly revenue improvement through enhanced conversion rates. Reduced customer feedback processing from 8 hours to 3 minutes (97% improvement).
- Transformed data processing infrastructure with Rust-based compaction service, cutting costs by 63% (\$1.2M annual savings). Reduced S3 throttling by 90% and automated recovery workflows from 5 hours to 5 minutes.
- Designed enterprise IAM platform processing 8M+ daily authentication requests at 99.999% availability. Reduced dataset provisioning from 5 days to 3 hours through OAuth workflows, enabling 40+ engineering teams.
- Streamlined ML model release cycle with Git-based artifact tracking, reducing deployment time from 3 weeks to under 2 weeks. Eliminated tribal knowledge dependencies across Product, Science, MLE, and SDE teams.
- Led security audits for 15 services processing personally identifiable information (PII) with zero high-severity findings. Created reusable frameworks that accelerated review cycles by 45% and reduced security incidents by 28%.
- Developed privacy-preserving Continual Learning Platform with federated learning, reducing Voice Recognition model onboarding by 30% while ensuring compliance through 24-hour audio deletion.

Founder and Lead Developer, EQHire

Providence, RI | Jan 2017 – Dec 2017

- Founded NLP-based candidate screening platform processing 1000+ candidates monthly. Built telephony SDK reducing partner integration from weeks to days, improving candidate quality by 40%.

EDUCATION

Master of Science in Computer Science | Brown University

Bachelor of Science in Applied Mathematics and Computer Science | Brown University

SELECTED PUBLICATIONS & TALKS

- **First Author:** "Comparing Global with Disease-specific Machine-learned Readmission Prediction Models" - AMIA Clinical Informatics, 2020. Improved ICU readmission predictions using XGBoost on MIMIC-III dataset
- **Conference Speaker:** Apache Flink Forward 2023 - "Scaling Real-time Stream Processing for ML Pipelines"
- **Co-author:** "Graph Embedding Priors for Multi-task Deep Reinforcement Learning" - NeurIPS KR2ML 2020

TECHNICAL SKILLS

AWS: EC2, S3, Lambda, DynamoDB, Kinesis, Apache Flink, Fargate, ECS, EKS, Spark, CloudFormation, CDK

Programming Languages: Python, TypeScript, Java, Rust

Security & ML: OAuth 2.0, RBAC, Federated Learning, OpenTelemetry, DevSecOps practices, Git