

Hasanat Jahan

Software Engineer | Forward Deployed Engineering | Applied AI & Distributed Systems

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SUMMARY

Software engineer with experience in forward deployed engineering, platform infrastructure, distributed systems, and applied AI. Built production healthcare payer infrastructure and AI-assisted developer tooling in Python; previously designed distributed monitoring systems for Amazon Aurora Global Database. Experienced in evaluation/UAT, API architecture, AWS, Temporal, observability, production debugging, and cross-functional delivery.

EXPERIENCE

Smarter Technologies | New York, NY (Remote) | Jul 2025 - Present

Software Engineer, Platform | Oct 2025 - Present

Forward Deployed Engineer | Jul 2025 - Oct 2025

- Led development of a distributed healthcare payer layer for claims intelligence and revenue cycle workflows, standardizing Claims Status, Remittance Advice, and Eligibility across payer and clearinghouse integrations.
- Architected Enhanced Claims Status in Python, FastAPI/Pydantic, and Temporal, unifying EDI 277/835 with Stedi, Availity, Waystar, and payer channels; achieved 90%+ AI disposition accuracy across 15K+ UAT claims and cut AR follow-up from 15-25 minutes to under 5 minutes.
- Built payer-ID crosswalks, claim-ID normalization, fallback logic, and X12 parsing across UHC, Cigna, and BCBS, improving claim matching reliability and downstream data consistency.
- Partnered with Voice Operations and cross-functional platform teams to integrate payer services into production workflows, align service contracts, resolve cross-service issues, and support enterprise healthcare client UAT.
- Built AI-assisted migration and code-review tooling using Python AST analysis, Cursor AI, and YAML rule engines, reducing portal development time by 60% and automating migrations across 20+ payer packages.
- Operated distributed services with OpenTelemetry/HyperDX, AWS, Kubernetes, Docker, and Terraform/OpenTofu, supporting 100K+ monthly claims transactions and reducing transaction exception rates to 4%.

Amazon Web Services (AWS) | Palo Alto, CA | Sep 2022 - Mar 2024

Software Development Engineer, Amazon Aurora

- Led end-to-end design and implementation of distributed monitoring for an Aurora Global Database flagship feature, architecting microservices for high availability, throughput, low latency, scalability, and cost efficiency.
- Designed PostgreSQL Change Data Capture (CDC) and snapshot data flows and integrated monitoring capabilities into the broader Aurora architecture, improving reliability and data handling efficiency.
- Built customer-facing monitoring and alerting using metrics, logs, dashboards, and internal APIs to detect anomalies and improve production troubleshooting for distributed database workloads.
- Developed production services and full-stack features in Java, Python, and C++; participated in architecture and code reviews and collaborated across front-end and service teams.
- Built unit, integration, end-to-end, CI, and model-based testing infrastructure; created production troubleshooting tools, proposed an internal sandbox, and mentored new hires and interns.

Microsoft Data Science Summer School | New York, NY | Jun 2020

Data Science Student

- Replicated and extended published forecasting research using R, regression, statistical inference, and improved baseline features to evaluate conclusions drawn from Google Trends data.

SELECTED AI / ML PROJECT

Documentation Generator | GitHub + Greptile APIs | Node.js / JavaScript

- Built an AI-powered repository documentation tool that indexes codebases, generates and refreshes README files, and integrates GitHub workflows for branch and file management; additional NLP work includes Word2Vec and probabilistic language models.

SKILLS

Programming: Python, Java, C++, C, JavaScript, SQL, PHP, R | Backend: FastAPI, Pydantic, Node.js, REST APIs, Microservices, Temporal
Cloud / Systems: AWS (EC2, S3, RDS, Aurora, Lambda, CloudFormation, CloudWatch), Kubernetes, Docker, Terraform/OpenTofu, PostgreSQL, CDC, Distributed Systems

AI / Operations: AI evaluation and UAT, AI-assisted developer tooling, OpenTelemetry, HyperDX, CI/CD, Monitoring, Alerting, Production Troubleshooting

Healthcare: EDI/X12 (835, 837, 277, 271), Claims Status, Remittance Advice, Eligibility, Payer and Clearinghouse Integrations

EDUCATION

Queens College, City University of New York | Flushing, NY | May 2022

B.A. Computer Science, Summa Cum Laude | Minor in Computational Linguistics | GPA: 3.96 | Phi Beta Kappa