

# Hamza Shaikh

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## SUMMARY

Infrastructure and reliability engineer with production SRE ownership experience as sole DevOps owner at a Shark Tank India B2C startup. Proficient in AWS, Docker, Prometheus observability, GitHub Actions CI/CD, and Python automation. Shipped a live Solana validator observability platform (SentinelSOL) and building AutoSRE, a self-healing SRE platform. Pursuing M.Sc. in CS(Distributed Systems and Software Engineering) at RPTU Kaiserslautern. Targeting SRE, Platform Engineering, and DevOps roles across Europe and GCC.

## EDUCATION

<b>RPTU Kaiserslautern-Landau</b> <i>M.S. Computer Science [Major-Distributed Systems, Minor-Software Engg]</i>	Kaiserslautern, Germany Oct. 2025 – Expected 2027
<b>Xavier Institute of Engineering</b> <i>B.E. Information Technology   CGPA: 8.69 / 10 (German eq.: 1.6/4)</i>	Mumbai, India Aug. 2020 – June 2024

## EXPERIENCE

<b>DevOps Engineering Intern [Sole Infrastructure Owner]</b> <i>Patil Kaki (B2C Startup, Shark Tank India)</i>	June 2023 – August 2023 <i>Remote</i>
<ul style="list-style-type: none"><li>Migrated production workloads from EC2 to AWS ECS and Fargate; deployment pipeline still running in production 3+ years later, eliminating manual instance management overhead and improving system scalability.</li><li>Engineered GitHub Actions CI/CD pipelines to automate and gate main branch deployments with rollback capability.</li><li>Architected async job pipeline using BullMQ over Redis for high-throughput job queuing; executed automated failover for seamless cluster transfers and backup storage.</li><li>Implemented Site Reliability Engineering practices across production DB and microservices; managed incident response using AWS load balancing and API endpoints to maintain high availability.</li><li>Drove cloud cost-optimisation strategy reducing OpEx by 25%; proposed reallocation of savings toward implementing new Service Level Indicators (SLIs) for the platform.</li></ul>	
<b>Java Development Intern</b> <i>CMP Infotech (Microsoft Partner Program)</i>	Dec 2021 – Jan 2022 <i>Remote</i>
<ul style="list-style-type: none"><li>Built a school management desktop application using Java Swing and MySQL under Microsoft-guided mentorship; applied MIS principles and JDBC connectivity.</li></ul>	

## PROJECTS

<b>AutoSRE</b>   <i>Python, FastAPI, Prometheus, Docker, Docker Compose, GitHub Actions</i>	Dec 2025 – Ongoing
<ul style="list-style-type: none"><li>Architected a production-grade self-healing SRE and Platform Engineering platform with full observability, monitoring, and automated incident recovery patterns across containerised microservices.</li><li>Instrumented RED metrics (Rate, Errors, Duration) via Prometheus with 50ms p95 latency tracking; implemented alerting thresholds for proactive incident detection.</li><li>Containerised all services with Docker Compose; CI/CD automated via GitHub Actions.</li></ul>	
<b>SentinelSOL</b>   <i>Go, Prometheus, PromQL, Alertmanager, Docker Compose, Telegram API</i>	2025 – 2026
<ul style="list-style-type: none"><li>Engineered and deployed a predictive out-of-band observability pipeline for Solana/Jito validators that detects hardware and network degradation before nodes become delinquent, preventing MEV revenue loss before it occurs.</li><li>Instrumented custom Go daemons scraping Jito ShredStream latency and Vote Credit velocity metrics via Prometheus; implemented 3-sigma Z-Score anomaly detection against dynamically learned validator performance baselines.</li><li>Automated incident routing and failover alerting via Alertmanager and Telegram API; containerised complete telemetry stack with Docker Compose for zero-dependency bare-metal deployment.</li><li><b>3rd Place</b>, Superteam Germany / neosfer Solana Ideathon, Frankfurt (2026) — \$250 USD prize.</li></ul>	
<b>GridCast</b>   <i>Python, TensorFlow, Keras, LSTM, Flask, React.js, Optuna, GeoPandas</i>	2023 – 2024
<ul style="list-style-type: none"><li>Built 28 region- and season-specific LSTM models (7 regions x 4 seasons) trained on 70 years of IMD gridded temperature data (1951–2021) for India-wide heatwave forecasting.</li><li>Designed a 14-day sliding window input pipeline predicting 7 days ahead; used Optuna (Bayesian/TPE) for hyperparameter search across all 28 model subsets.</li><li>Engineered full-stack deployment: Flask REST API backend serving LSTM inference, React.js frontend with D3.js geospatial heatwave visualisation on an interactive Indian map.</li><li>Co-authored and submitted to IEEE ICSPCRE 2024 (Paper ID: 652), B.E. Capstone Project.</li></ul>	

## CERTIFICATIONS & ACTIVITIES

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**Awards: 3rd Place**, Superteam Germany / neosfer Solana Ideathon, Frankfurt (2026) - deployed SentinelSOL, a live predictive Solana validator delinquency detection platform; \$250 USD prize

**Certifications:** AWS Certified Cloud Practitioner (2023), Postman API Fundamentals Student Expert (2023)

**Events:** Solana Hacker House, Bangalore (Sep. 2023 & 2024) - Solana Foundation multi-day event on blockchain infrastructure and distributed systems.

**Community:** Cerritus Coders Community Organiser, Mumbai (Dec. 2022) - Organised technical meetup for developers around software engineering and cloud technologies.

## TECHNICAL SKILLS

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**Cloud Platforms:** AWS (EC2, ECS, Fargate, DynamoDB, S3, CloudWatch, IAM, Load Balancing), GCP, Azure, OCI, DO

**DevOps & CI/CD:** Git, GitHub Actions, CI/CD Pipelines, NGINX, Infrastructure as Code (IaC)

**Containers & Infrastructure:** Docker, Docker Compose, Terraform, Linux, Kubernetes (Foundational)

**Observability:** Prometheus, PromQL, Grafana, RED Metrics, Alertmanager, Monitoring, Alerting, Health Checks

**Programming:** Python, Go, Bash, C++

**Databases & Queuing:** Redis, BullMQ, SQLite, MySQL