SUDHANSHU RATNA THAKUR

Software Developer | www.linkedin.com/in/sudhanshuratna/ | https://github.com/sudhanshubliz

KEY HIGHLIGHTS & IMPACT

Led the design and delivery of scalable microservices platforms supporting high-volume enterprise transactions across banking, payments, and regulated financial environments.

Played a key role in modernising legacy enterprise systems into cloud-native architectures, improving scalability, operational resilience, performance, and long-term maintainability.

Built and integrated Generative AI-powered enterprise solutions using LLMs, LangChain, and AWS AI services to support intelligent automation, document processing, and workflow optimisation.

Led backend architecture and product engineering for a major transformation programme at Capital One UK, rearchitecting a legacy SAS-based fraud and regulatory reporting platform into a modern cloud-native ecosystem integrated with Salesforce and Snowflake.

SUMMARY

Software engineering leader with 12+ years of experience designing and scaling enterprise-grade digital platforms across banking, payments, and data-driven ecosystems. Specialised in cloud-native microservices architecture using Java and Spring Boot, with deep expertise in distributed systems, high-performance backend engineering, scalable API platforms, and enterprise integration architectures. Proven track record of leading end-to-end product engineering across Amazon Web Services, Microsoft Azure, and Google Cloud, delivering resilient and high-availability systems within regulated enterprise environments. Experienced in building mission-critical RESTful services and integrating them with modern frontend ecosystems to support seamless, high-performance digital experiences at scale. In recent years, expanded into Generative AI and enterprise AI systems using Amazon Bedrock, Anthropic Claude, Retrieval-Augmented Generation (RAG), and Model Context Protocol (MCP)-based server architectures to enable intelligent automation, agentic workflows, contextual orchestration, and document-driven enterprise applications. Recognised for combining strong technical depth with practical business delivery, driving platform modernisation, performance optimisation, and engineering excellence while mentoring teams to build scalable, future-ready systems.

MENTORING & VOLUNTEERING INITIATIVES

- Contributed to the startup ecosystem as a Senior Technical Mentor with NASSCOM 10,000 Startups, mentoring early-stage SaaS and enterprise ventures on backend architecture, microservices, cloud scalability, and engineering best practices on AWS. Through structured mentoring sessions and architecture reviews, I helped startups transition toward modular, cloud-native systems while advising founders on responsible adoption of Generative AI through secure and scalable backend foundations. My contributions supported improved scalability, stronger engineering discipline, and long-term operational efficiency across participating ventures. (https://community.nasscom.in/).
- Volunteered with TiiQu C.I.C. https://tiiqu.com to conduct a comprehensive architectural and technology-stack review of its trust-centric digital platform. I documented system components, service interactions, and operational dependencies, identified technical debt and scalability risks, and provided structured recommendations that improved onboarding efficiency, architectural transparency, and technology planning for future growth.
- Actively engaged with Digital Transformation EXPO Manchester 2025 (DTX Manchester), one of the UK's leading enterprise technology events, where I explored advancements in AI, cloud, digital transformation, and enterprise systems through knowledge-sharing sessions and interactions with technology leaders and practitioners.
- Maintain an active public GitHub profile showcasing independent contributions to AI engineering, backend systems, cloud-native applications, and developer-focused innovation outside my commercial employment. My repositories include practical implementations involving LangChain, AWS Bedrock, RAG pipelines, NLP systems, and SRE intelligence tools, demonstrating continuous learning, open-source engagement, and hands-on experimentation with modern AI and cloud technologies.
- I attended the International Franchise Show London 2025 at ExCeL London, where I engaged with 250+ exhibitors and joined 60+ seminars on franchising, entrepreneurship, and business expansion; through interactions with global brands and experts, I gained insights into scalable business models and go-to-market strategies, strengthening my ability to align technology innovation with real-world commercial impact(https://www.thefranchiseshow.co.uk/).

KEY TECHNICAL EXPERTISE

UST Global, https://www.ust.com
UST is a global digital transformation and IT services company that partners with enterprises worldwide to design, build, and scale innovative technology solutions across industries.

Lead II – Software Engineering / Full Stack Developer | **India** **Jan 2024 – Present**

I am currently leading the development of critical systems supporting the migration of legacy analytics platforms to modern cloud-based solutions within a global banking environment.

Key Contributions:

- I led the backend architecture and product development for Capital One's high-risk migration from the legacy SAS platform to a modern Salesforce-integrated reporting system, designing scalable RESTful APIs for fraud analysis, Section 78 compliance, and exception reporting using Spring Boot and event-driven microservices.
- I implemented secure role-based access control, integrated Snowflake for efficient data processing, and enabled seamless API exposure to Salesforce. I drove engineering excellence through TDD, DDD, containerisation, and performance benchmarking, while also prototyping LLM-powered document-intelligence workflows with LangChain and AWS. This resulted in a zero-defect, production-ready platform that enabled full SAS decommissioning, improved performance by ~35–40%, reduced costs by ~30%, and significantly enhanced user productivity and experience.
- I developed role-based access control mechanisms, strengthening security across enterprise services.
- Integrated backend services with Snowflake and Salesforce, enabling seamless data flow across platforms.
- I applied event-driven and workflow-based architectures, improving system responsiveness and modularity.
- Built Generative AI-driven document processing solutions, leveraging Amazon Bedrock and PyPDF to automate banking workflows.
- I implemented performance testing frameworks using JMeter and Gatling to meet strict SLA requirements.

TSYS / Global Payments, UK https://www.tsys.com
TSYS, now part of Global Payments, is a leading global payments technology provider delivering secure, scalable, cloud-enabled solutions for issuers, merchants and digital commerce worldwide.

Java Tech Lead **Oct 2020 – Dec 2024**

I led backend engineering for a large-scale payment orchestration platform, enabling seamless routing and processing of transactions across global systems.

Key Contributions:

- Led the modernisation of a critical correspondence batch-processing platform at TSYS / Global Payments by replacing a legacy, failure-prone system with a Spark-based architecture and automated Apache Airflow workflows. Improved operational efficiency by ~50–60%, reduced manual intervention by ~70%, strengthened platform security, and significantly improved reliability and compliance readiness.
- Designed and implemented secure enterprise APIs, encryption/decryption services, and validation frameworks to strengthen transaction security, reduce processing errors, and support scalable, resilient payment operations.
- Architected payment routing and middleware orchestration platforms integrating multiple payment providers and legacy mainframe systems, enabling seamless transformation of SOAP-based services into modern REST-driven ecosystems.
- Implemented event-driven microservices using Kafka to improve scalability, throughput, and real-time processing capabilities across high-volume enterprise transaction systems.
- Led backend engineering teams across architecture, code quality, and delivery governance, establishing scalable engineering standards and improving development consistency across enterprise platforms.

Publicis Sapient, https://www.publicissapient.com
Publicis Sapient is a global digital business transformation company that partners with enterprises to design, build, and scale innovative, data-driven products and platforms.

Senior Associate **Mar 2018 – Sep 2020**

I worked on digital transformation initiatives in the agri-tech domain, building intelligent systems to improve agricultural productivity.

Key Contributions:

- Developed secure backend systems using Spring Boot and OAuth2, ensuring robust API security.
- Built data-driven applications supporting agronomic decision-making.
- Implemented asynchronous data processing and REST integrations, improving system efficiency.
- Contributed to frontend development using Angular, delivering responsive and user-friendly interfaces.
- Ensured high code quality through testing, code reviews, and CI/CD pipelines.

PRIOR ASSIGNMENTS

- Consultant/ Solutions Architect | Capgemini — Oct 2016 – Feb 2018
- Software Engineer | R Systems — Apr 2015 – Jun 2016
- Senior Programmer/ Technical Lead | CyberQ Pvt Ltd — Jul 2013 – Apr 2015

CERTIFICATIONS

- AWS Certified Developer – Associate (2024–2027)
- Machine Learning & Data Science Certification
- Supercomputing & Computational Biology – IIT Delhi

EDUCATION

Bachelor of Technology (B.Tech) | Gautam Buddha Technical University (GBTU) — 2007 – 2011

HOBBIES & INTERESTS

- Building and exploring Generative AI and agentic workflows
- Continuous learning through technology communities and open-source contributions
- Travelling and exploring new places
- Reading technology and business articles
- Fitness and outdoor activities
- Listening to music and watching documentaries