

Sumanth Pandugula

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Summary	Startup-minded engineering leader with 10+ years of experience building and scaling modern SaaS platforms, leading 0→1 product development, and architecting cloud-native systems in financial services and insurance. Expert in designing secure, scalable systems using AWS, microservices, and event-driven patterns, with a strong track record of aligning engineering execution with business goals in fast-paced, high-growth environments. Authored Gen AI whitepapers with AWS, led SaaS transformation initiatives, and won 15+ global hackathons including Facebook Global Finals and TechCrunch Disrupt—demonstrating rapid iteration, innovation, and technical leadership under pressure.		
Education	M.S, Computer Science University of Illinois at Chicago, IL, USA	GPA: 4.0/4.0	May 2017
	B. Tech, Computer Science Engineering SRM University, Chennai, Tamil Nadu, India	GPA: 4.0/4.0	May 2015
	Research Intern in Education Technologies at Carnegie Mellon University Worked on adaptive learning algorithms in the Education Technology Lab. Pittsburgh, PA, USA – September 2014 to February 2015		
Technical Skills	Architecture & Cloud: AWS 3X Certified, VPC, Route 53, ELB, CloudFront, API Gateway, IAM, EC2, EKS, Lambda, Step Functions, SNS, SQS, Glue/EMR, S3, Aurora, RDS, DynamoDB, DocumentDB, Bedrock, SageMaker, Secrets Manager, Azure, GCP, Kubernetes (EKS), Microservices, CI/CD, DevSecOps. Languages & Frameworks: Java (Spring Boot), Python, C#, C, Node.js, JavaScript/TypeScript, React. Data & Integration: Oracle PL/SQL, PostgreSQL, MongoDB, Snowflake, DataLake, ETL/ELT, REST APIs, GraphQL, gRPC, WebSockets. AI/ML: Generative AI, OpenAI, Bedrock, Sagemaker, Gemini, LLaMa, other LLM integrations Other: Event-Driven Architecture, Domain-Driven Design, Twelve-Factor App, Service Mesh, FinOps		
Work Experience	Principal Architect, Office of the CTO, Vitech Systems Group 2023 - Present <ul style="list-style-type: none">• Led the Innovation & Maintainability track on the Architecture Review Board, shaping technical decisions across 15+ product teams and scaling best practices across the enterprise.• Architected and delivered a Usage Analytics platform (POC to Production) handling 1B+ data rows, driving a 25% increase in upsell conversions and providing key insights to product leadership.• Spearheaded the technical strategy and authorship of a multi-tenant SaaS architecture standard, defining best practices around isolation, cost, and identity in AWS—now a reference for 200+ engineers.• Led the enterprise SaaS transformation, breaking down legacy monoliths into cloud-native, microservices-based systems—reducing release cycles by 90% and unlocking rapid deployment velocity.• Designed and implemented real-time WebSocket architecture and event-driven data pipelines, improving user responsiveness by 60% and laying groundwork for async communication across the platform.• Authored and enforced architecture governance frameworks for Gen AI, Serverless, and distributed systems—standardized across the org and adopted as internal engineering policy.		

- Acted as a **technical advisor to senior leadership**, aligning architecture roadmaps with OKRs, regulatory needs, and cross-org strategy.
- Authored Gen AI whitepapers in collaboration with AWS—recognized as foundational in shaping the firm's emerging AI strategy.
- Launched and **led internal hackathons** (80%+ participation), translating 20% of projects into production and building a culture of experimentation and delivery.

Senior Technical Architect , Vitech Systems Group 2020 – 2023

- Led **platform modernization efforts** across core insurance systems—migrating monoliths to **containerized AWS-based microservices** using EKS, S3, RDS, and API Gateway.
- Designed a **multi-cloud file abstraction system** to unify access across AWS, Azure, and on-prem—driving 60% operational gains and 90%+ cost reduction in storage operations.
- Built and deployed **AI/ML pipelines** for anomaly detection and claims forecasting, improving underwriting accuracy and risk modeling.
- Developed and demoed an **Alexa-integrated digital insurance assistant** at the company keynote, increasing customer engagement by 40%.
- Standardized DevOps workflows across product teams by implementing **GitOps CI/CD pipelines**, IaC via Terraform, and Jenkins-based automation.
- Delivered full-stack solution designs including **data, API, security, and deployment architectures**—partnering directly with business stakeholders and technical leaders.

Software Engineer , Vitech Systems Group 2017 – 2019

- Contributed to foundational back-end modules across billing, claims, and document management in Vitech's core insurance suite.
- Built reusable REST APIs using Java Spring Boot, improving system reliability and reducing onboarding time for developers by 30%.
- Created a Microsoft Word plugin integrated with core platform APIs—reducing report generation time by 60% and enhancing field productivity.
- Designed a WebSocket-based notification system, enabling asynchronous, real-time updates and improving user responsiveness.

Web Apps Developer at University of Illinois Chicago March 2016 – May 2017

- **Architected and developed the U-Pass digital transit management system**, streamlining fare pass operations for **15,000+ students**, reducing administrative overhead by **40%**, and saving students over **10,000+ hours annually**.
- Led a team of 2 developers in building **RESTful API services** to integrate with the **OrgSync API**, enabling real-time campus event updates and **improving student engagement by 30%**.
- Introduced **automation tools** for bulk data validation and import, reducing manual processing time by **70%** and significantly minimizing operational errors.

Hackathon Projects

Participated in 30+ hackathons globally.

PlanPredict – Humana Data Challenge Winners, TechCrunch Disrupt SF '19

Allows employees to select the cheapest insurance plan based on their previous claim history.

OnReel News – 1st place at Facebook Global Hackathon Finals '15

Lets users track developing stories around the world through videos taken by direct witnesses.