

PREM CHAND AVANIGADDA

Engineering Team Lead | Technical Lead | Software Development Manager

Email: Pavanigadda.work@gmail.com, Phone: +91-738-692-3281, LinkedIn: <https://linkedin.com/in/pavaniga>

PROFESSIONAL SUMMARY

Engineering leader with 8+ years of progressive experience in software development management, people management, and technical leadership across logistics, SaaS, and healthcare technology. Built and scaled distributed teams from 0 to 12 engineers (92% retention), led \$70M+ platform modernization with zero downtime, and drove \$2M+ annual cost savings through strategic resource allocation and process optimization. Currently leading offshore engineering teams at Hub Group from Hyderabad office (relocated 2024). Secured \$3.5M in platform investment through executive presentations and stakeholder management. Expert in event-driven microservices architecture, Domain-Driven Design (DDD), AI/ML integration, cloud-native development (AWS/Azure), distributed systems, SDLC management, and translating business requirements into scalable technical solutions delivering measurable business outcomes.

Core Competencies: Team Building & Scaling | Engineering Leadership | People Management | Microservices Architecture | Cloud Infrastructure (AWS/Azure) | AI/ML Integration | Full-Stack Development | DevOps & CI/CD | Cross-Functional Collaboration | Stakeholder Management | Budget Planning & OKR Alignment | Agile & Scrum | Communication | Problem Solving

PROFESSIONAL EXPERIENCE

Senior Full Stack Developer (Team Lead)

Hub Group | September 2022 – Present
Chicago, IL, USA (2022-2024) / Hyderabad, India (2024-Present)

Leading offshore engineering teams for Hub Group's \$70M+ Transportation Management System (TMS) serving 3,000+ Less-Than-Truckload (LTL) customers

Leadership & Strategic Impact

Team Building & Management: - Built and scaled two offshore teams from 0 to 12 members (10 engineers, 2 QA) with 92% retention through structured hiring, onboarding, and mentorship programs - Conducted performance reviews, 1-on-1s, and career development discussions across US-India time zones - Led technical interviews and made hiring decisions balancing technical skills and cultural fit - Proficient in using and mentoring colleagues and developers to leverage Claude and VScode Copilot agents to accelerate development, including writing unit and integration tests, and maintaining context.md files to track repository changes and ingest context into AI tools for efficient development workflows

Executive Leadership & Business Impact: - Secured \$3.5M in continued platform investment through Funding Budget Request (FBR) presentations to C-suite demonstrating ROI and strategic alignment - Drove \$2M+ annual savings by architecting in-house warehouse billing platform replacing Manhattan Scale WMS - Achieved \$500K annual infrastructure savings through AWS/Azure optimization - Improved on-time delivery from 65% to 88% and reduced MTTR by 40% through agile practices and SOPs

AI/ML Innovation: - Spearheaded AI Ops Assistant by fine-tuning Llama-3.2-1B model (LoRA), eliminating 1,200+ manual processing hours monthly and reducing document errors by 85% - Achieved 80%+ adoption rate across 15-member Operations team within 3 months - Partnered with MLOps team to deploy model on AWS infrastructure with enterprise security compliance

Key Technical Achievements

Legacy TMS Modernization (\$70M+ Platform): - Led migration of legacy Miranda TMS to cloud-native Order Management platform with zero downtime (99.9% uptime) - Architected event-driven microservices architecture using RabbitMQ for asynchronous messaging and integration patterns - Implemented Domain-Driven Design (DDD) principles across all integrations ensuring clear bounded contexts and business alignment - Successfully transitioned 3,000+ LTL customers with comprehensive testing and validation - Architected 21+ microservices using Node.js, TypeScript, MongoDB, PostgreSQL on hybrid AWS/Azure infrastructure with Joi schema validation for request/response data integrity - Championed Test-Driven Development (TDD) practices across all microservices, achieving 85%+ code coverage with comprehensive unit and integration tests using Jest and Supertest - Implemented CI/CD pipelines with automated testing and rollback strategies - Integrated APM and Elastic Stack for distributed logging, tracing, and performance monitoring - Built audit logging framework tracking all critical changes across microservices

Warehouse Billing Platform: - Led team to build scalable TypeScript/Node.js billing platform from ground up using Test-Driven Development methodology - Implemented Redis caching layer for high-performance pricing calculations and session management, reducing API response times by 60% - Integrated with Oracle ERP, automated 80% of invoice processing, reduced month-end close time by 50% - Delivered real-time billing visibility and revenue reporting for finance team

Enterprise Integrations: - Delivered 15+ critical integrations (Oracle ERP, OTM, Dell Boomi, p44, SMC3) reducing manual data entry by 75% - Implemented payment gateway and banking API integrations improving compliance and traceability - Built automated reconciliation reports reducing data mismatches by 40%

Technologies: Node.js, TypeScript, JavaScript, React, MongoDB, PostgreSQL, RabbitMQ, Redis, AWS (EC2, Lambda, S3, API Gateway, DynamoDB, CloudWatch), Azure (AKS), Docker, Kubernetes, Terraform, Helm, gRPC, REST APIs, Oracle ERP, Llama-3.2-1B, LoRA, Prometheus, Grafana, Elastic Stack, APM

Senior Software Engineer

Flexera | August 2019 – September 2022
Chicago, IL, USA

Built enterprise SaaS solutions for IT management and optimization platform serving 5,000+ customers

Leadership Growth

- Stepped into interim team lead role managing 3 cross-functional teams (15 engineers) for 6-month period during management transition, maintaining 95% sprint velocity with zero delays
- Led architecture and design discussions providing technical guidance for FSM, FNMS, and microservices
- Mentored 6+ engineers in agile methodology, microservices development, and cloud-native practices

Major Achievements

Security Transformation: - Led enterprise-wide security initiative migrating 25+ microservices from legacy tokens to IAM-based OAuth2 authentication, passing SOC2 audit - First engineer to implement OAuth2 in Flexera's proprietary FIT language, establishing company-wide pattern

Platform Development: - Architected Go/Java microservices with REST/GRPC/GraphQL APIs for FSM (SaaS Manager) and FNMS (License Optimization) - Built GraphQL service enabling flexible querying of entitlement data, reducing API response times by 40% - Implemented Kafka-based event streaming for real-time data synchronization across microservices - Deployed Istio service mesh for traffic management, security, and observability across distributed services - Implemented Redis caching strategies for high-frequency data access, improving query performance by 50% - Built Go pagination plugin adopted as company-wide standard for REST APIs - Developed data ingestion services processing CSV files with validation and S3 error handling

DevOps Excellence: - Automated AWS infrastructure using Terraform and Helm, reducing deployment time by 70% and infrastructure incidents by 25% - Implemented comprehensive observability stack: Prometheus/PagerDuty monitoring, Elastic Stack for distributed logging, APM for performance tracking, cutting MTTR by 35% - Built centralized audit logging system tracking critical business operations across all microservices - Integrated CloudWatch for legacy application monitoring and alerting - Created CI/CD pipelines with GitHub Actions, Docker, and Kubernetes

Customer Success: - Delivered critical data extraction for enterprise clients (AbbVie & Abbott) under tight deadlines - Integrated FSM with Technopedia through database remodeling and Java backend refactoring

Technologies: Go, Java 8, PostgreSQL, MS SQL, MongoDB, Redis, Kafka, AWS (EKS, Elastic Beanstalk, S3, Lambda, API Gateway), Docker, Kubernetes, Istio Service Mesh, Terraform, Helm, React, AngularJS, Prometheus, Grafana, GitHub Actions

Software Engineer

Indiana University | August 2017 – July 2019

Indianapolis, IN, USA

Multi-institutional collaboration with IU, University of Wisconsin, and Oxford University developing mobile health technology for neonatal care

Key Achievements

- Co-authored research presented at IBICA 2018 conference: "Development of Innovative Mobile Phone-Based Newborn Care Training Application"
- Developed mHBS cross-platform mobile health application (iOS/Android) improving healthcare worker training and increasing user satisfaction by 50%
- Implemented REST APIs for backend integration with DHIS2 server ensuring secure data flows
- Built native Android app (Java, Android SDK) and hybrid app (Cordova/PhoneGap, Framework7) with MVC design patterns
- Completed 10+ graduate projects: ML (TensorFlow, LSTM), real-time analytics (AWS Kinesis), data visualization (D3.js), database design (SSMS)

Technologies: Java, Android SDK, Cordova/PhoneGap, Python, Flask, Django, REST APIs, TensorFlow, AWS (Lambda, Kinesis), D3.js, MongoDB

TECHNICAL SKILLS

Programming Languages: Go, JavaScript, TypeScript, Java, Python, Bash, SQL

Backend: Node.js, Go, microservices, Spring Boot, Flask | REST, GRPC, GraphQL | PostgreSQL, MS SQL, MongoDB, Redis, DynamoDB

Message Queues & Event Streaming: Kafka, RabbitMQ, CloudAMQP, AWS SQS | Event-Driven Architecture

Frontend: React, AngularJS | Webpack, NPM, Yarn | HTML5, CSS, Bootstrap

Cloud (AWS): EC2, Lambda, EKS, S3, API Gateway, DynamoDB, CloudWatch, X-Ray, IAM, Route53

Cloud (Azure): AKS, OpenShift, Container Registry

DevOps: Docker, Kubernetes, Istio Service Mesh, Terraform, Helm, GitHub Actions, Jenkins, Prometheus, Grafana, PagerDuty

Observability & Monitoring: Elastic Stack (ELK), APM (Application Performance Monitoring), CloudWatch, Prometheus, Grafana, Distributed Tracing, Audit Logging

Caching & Performance: Redis (Caching, Session Management, Rate Limiting), Performance Optimization

Enterprise Systems: Oracle ERP, Oracle OTM, Dell Boomi, Manhattan Scale WMS, p44, SMC3

AI/ML: Llama-3.2-1B, LoRA Fine-tuning, Hugging Face, TensorFlow, MLOps

Methodologies: Agile, Scrum, Kanban, TDD, CI/CD, Microservices Architecture, Event-Driven Architecture, Domain-Driven Design (DDD)

DOMAIN EXPERTISE

Software Asset Management: Deep understanding of SaaS spend management (FSM) and license optimization (FNMS) enabling customers to identify underutilized licenses, track shadow IT, reduce overspending, and support data-driven vendor negotiations

Logistics & Supply Chain: Experience with TMS platforms, LTL brokerage operations, warehouse management, shipment tracking, pricing engines, and logistics provider integrations (p44, SMC3)

FinTech: Payment gateway integrations, banking APIs, AP/AR automation, invoice processing, billing platforms, and financial reconciliation systems

KEY LEADERSHIP STRENGTHS

Team Leadership: Built teams from scratch with high retention through mentorship, performance management, and clear growth paths

Executive Communication: Secured multi-million dollar investments through compelling presentations demonstrating ROI and strategic value

Cost Optimization: Consistently identified opportunities to reduce costs while improving functionality and performance

Cross-Functional Collaboration: Partnered effectively with Product, Finance, Operations, UX, and MLOps teams to deliver business outcomes

Process Excellence: Implemented agile ceremonies, SOPs, and incident management protocols improving delivery metrics significantly

Innovation: Pioneered AI/ML adoption, OAuth2 implementation, and reusable standards adopted company-wide

EDUCATION

Master of Science in Computer and Information Science | GPA: 3.43/4.0
Indiana University–Purdue University Indianapolis (IUPUI), USA | 2017 – 2019

Bachelor of Technology in Computer Science and Engineering | CGPA: 8.37/10
Velagapudi Ramakrishna Siddhartha Engineering College (VRSEC), Vijayawada, India | 2013 – 2017

PROFESSIONAL ACHIEVEMENTS

Hub Group: Team building (0→12, 92% retention) | \$3.5M secured investment | \$2M+ annual savings | AI innovation (1,200+ hours eliminated) | Zero-downtime migration (\$70M platform) | 15+ integrations (75% manual reduction)

Flexera: 6-month interim leadership (15 engineers, 95% velocity) | Security transformation (25+ services, SOC2 pass) | OAuth2 pioneer | GraphQL API development | Istio service mesh deployment | Kafka event streaming | Platform standardization | 70% deployment time reduction | 35% MTTR improvement

Indiana University: IBICA 2018 publication | Mobile health impact (50% satisfaction improvement) | 3.43 GPA with hands-on development