Jay Unewal

Senior Product Development Lead

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Summary

I take products from idea to production across web, native iOS, APIs and AWS, and I make them fast and affordable to run. Today I lead engineering teams and architect the systems they build, most recently Project Watershed, a data platform where AI builds each pipeline from blocks anyone can read and change.

Experience

Senior Product Development Lead · TigmaMinds Pvt Ltd (formerly Crystal BI) · Guwahati, Assam, India · 2025 – Present

- Architect of Project Watershed (codename), a data platform where AI builds each pipeline from blocks people can read and change, started by REST, Kafka, CDC or events and debugged, deployed or scaled in one click. Lead the cross-functional teams that build it.
- Mentor engineers across backend, mobile and DevOps through code reviews, architecture reviews, sprint planning and career development.
- Own technical strategy, execution and delivery for platform work.
- Direct microservices and APIs in Python Flask, Java Spring and Node.js with consistent standards, observability and API governance.
- Oversee data architecture across PostgreSQL and AWS-managed storage, setting data modeling guidelines, retention policies and access patterns for high-volume transactional workloads.
- Own the pet care platform's architecture across iOS and backend, including scheduling, Stripe payments and its media service on AWS CloudFront.
- Manage AWS infrastructure (EC2, Lambda, RDS, CloudFront, DynamoDB), CI/CD, infrastructure-as-code and observability.

STACK Python Flask · Java Spring · Node.js · Swift/iOS · PostgreSQL · MySQL · MongoDB · DynamoDB · AWS RDS · CloudFront · Lambda · EC2 · Stripe · Kafka · Redis · CI/CD · API orchestration

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Senior Developer · Fortune 500 company (travel portal) · 2024 – 2025

- Worked on the frontend and backend of the company's travel portal.

Product Development Lead · Teupo Inc · Vancouver, BC, Canada · 2024 – 2025

- Led a travel-domain services project, running knowledge transfers and onboarding and supporting multiple teams with development and code reviews.
- Built a teleconsulting app for doctors, covering API development and iOS video calling and chat.
- Delivered video calling and chat across Android, iOS and web with the Twilio SDK.
- Enhanced the pet parents' appointment tracking platform with real-time walk tracking using server-sent events.
- Coordinated Python Flask and Java Spring APIs with the Android and web teams while leading iOS development.
- Contributed APIs to an Electronic Health Records (EHR) project.

STACK Python Flask · Java Spring · MongoDB · MySQL · AWS RDS · EC2 · EKS · iOS Swift · Razorpay · Twilio · Redis · Elasticsearch · Docker · Kubernetes · Splunk · ELK · Grafana · Gradle · Jenkins

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Product Development Lead · TigmaMinds Pvt Ltd (formerly Crystal BI) · Guwahati, Assam, India · 2018 – 2025

2018 – 2021	**Product Development Engineer**
2021 – 2023	**Senior Product Development Engineer**
2023 – 2025	**Product Development Lead**

- Designed a platform connecting pet parents and providers with scheduling, event management and appointment session tracking.
- Led iOS development for session recording, payment processing and a pet gallery for media sharing.
- Built Python Flask APIs for session recording and Java Spring APIs for payments and the pet gallery.
- Used MySQL for transactional data and MongoDB for other data.
- Delivered session documentation, real-time activity tracking, invoice generation and Stripe integration.
- Built a Node.js media server for text, photo and video posts with CDN caching.

STACK Python Flask · Java Spring · Node.js · MongoDB · MySQL · AWS RDS · CloudFront · Lambda · DynamoDB · EC2 · iOS Swift · Stripe · Kafka · Redis

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Product Development Trainee · TigmaMinds Pvt Ltd (formerly Crystal BI) · Guwahati, Assam, India · 2017 – 2018

- Designed and built an automated pharmacy inventory management and GST-compliant billing system.
- Built Java Spring APIs on Tomcat with an AngularJS front end.
- Optimized SQL queries, then moved from MySQL to MongoDB.
- Deployed the full stack on AWS.

Projects

AT TIGMAMINDS

PHYSICIAN CO-PILOT
Generative AI co-pilot built on LLMs that assesses patient symptoms, gives an initial triage and guides patients to the right level of care.

SOAP NOTES AND CODING
GenAI microservice that uses NLP to turn doctor–patient conversations into structured SOAP notes and predicts ICD and CPT codes for billing.

MEDICAL CODING ASSISTANT
Coder-friendly tool on a GenAI model with a Retrieval-Augmented Generation (RAG) pipeline, giving real-time access to ICD and CPT standards.

HEALTHCARE PLATFORM
Patient management, electronic health records (EHR), appointment scheduling, billing, invoicing and reporting.

ONLINE PHARMACY
Medication catalogue, online prescription upload, secure payments, hyperlocal delivery, inventory and GST-compliant billing.

Skills

AI	Generative AI · LLMs · RAG · NLP · OCR
LANGUAGES	Java · Python · Swift · JavaScript · HTML/CSS · SQL · NoSQL
TECHNOLOGIES	iOS · Spring · Servlets · JSP · Flask · Node.js · MSSQL · PostgreSQL · MySQL · MongoDB · DynamoDB · Microservices · Kafka · Redis · Elasticsearch · Docker · Kubernetes · GitLab CI/CD · Jenkins · Gradle · Maven · NGINX · Firebase · Twilio · Stripe · JUnit · Mockito · TestNG · Pytest · Grafana · Splunk · Kibana · Logstash
CLOUD	Cloudflare · AWS: EC2 · ECS · EKS · RDS · S3 · Lambda · CloudFront · Step Functions · Elemental MediaConvert · CloudWatch · Route 53 · IAM
CONCEPTS	OOP · Mobile Development · MVC · MVVM
LEADERSHIP	Technical leadership · Mentoring · Architecture reviews · Code reviews · Sprint planning · Career development · Onboarding · Technical strategy · Scrum

Education

April 2017	**Sardar Vallabhbhai Patel Institute of Technology** Bachelor's, Computer Engineering · Gujarat, India	**8.04 CGPA**
April 2014	**Parul Institute of Engineering & Technology** Diploma, Computer Engineering · Gujarat, India	**8.50 CGPA**