Suraj **Lama**

LEAD SOFTWARE ENGINEER

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"Building, breaking and re-building."

Summary

Lead Software Engineer with 9+ years of experience specializing in back-end development, microservice architectures, and full application lifecycle management. Led a complete platform rewrite from Laravel to Node.js and currently driving R&D initiatives across RAG systems, generative media pipelines, and real-time communication. Proven ability to deliver tailored B2B solutions with a collaborative, client-focused approach.

Technical Skills

Languages	TypeScript, JavaScript, PHP, Rust, Bash, SQL
Backend	Node.js, Express, gRPC, GraphQL, REST, WebSocket, Laravel, Lumen, CodeIgniter
Databases	PostgreSQL, MongoDB, MySQL, InfluxDB, Elasticsearch
AI / ML	LangChain, LangGraph, LangSmith, RAG, TTS / Voice Cloning, ComfyUI
DevOps	CI/CD, Docker, Nx Monorepo, n8n, Firebase, k6, Artillery
Payments	Stripe, PayPal, eSewa, Khalti, Fonepay, PrabhuPay
Frontend	React.js, Socket.IO

Work Experience

Innovatetech Pvt. Ltd. — *Kathmandu, Nepal*
LEAD SOFTWARE ENGINEER – RND TEAM — *Jan. 2022 – Present*

- Lead task planning, code reviews, and architecture decisions for development teams, including direct oversight of the Video Streaming Service team.
- Architected a multi-protocol Notification Service supporting FCM, SES, WebPush, and WebSocket for real-time communication across web and mobile clients.
- Built a multi-tenant package purchase system integrating Stripe and PayPal with dual API support (gRPC and REST).
- Designed scalable Eventing and Session management systems leveraging InfluxDB and MongoDB for high-throughput workloads.
- Optimized MongoDB and PostgreSQL queries through index tuning and query refactoring; led cluster management and archival strategies.
- Developed a secure file upload pipeline with pre-upload malware detection using ClamAV, with the scanning layer written in Rust.
- Engineered RAG systems using LangChain, LangSmith, and LangGraph for intelligent document retrieval and question-answering.
- Designed automated podcast generation workflows in self-hosted n8n, integrating LLMs with zero-shot TTS generation.
- Prototyped video generation pipelines using n8n, LLMs, ByteDance APIs, and ComfyUI-based workflows with open-source models.
- Implemented a Key Rotation service and open-source TTS/voice cloning solutions to enhance security and media capabilities.

Lenden Sewa Pvt. Ltd. — *Kathmandu, Nepal*
NODE.JS DEVELOPER — *Apr. 2021 – Oct. 2021*

- Built backend services and React.js frontend for an eCommerce platform, including PrabhuPay payment integration.
- Researched and evaluated Elasticsearch and Apache Kafka for search indexing and event streaming optimization.
- Led and supervised the development team, owning sprint planning and delivery timelines.

Hyperloop Nepal Pvt. Ltd. (Tootle) — *Lalitpur, Nepal*
NODE.JS / PHP DEVELOPER — *Feb. 2018 – Mar. 2021*

- Drove a full backend rewrite from monolithic Laravel to Node.js microservices with GraphQL and Socket.IO.
- Decoupled mobile APIs from the Laravel monolith by implementing transitional services in Lumen.
- Integrated Google Maps and OpenStreetMap APIs for real-time location services powering the ride-matching engine.
- Implemented eSewa, Khalti, and Fonepay payment gateways; hands-on with Firebase, MySQL, and MongoDB tuning.

Information Technology of Experts Group Pvt. Ltd. — *Kathmandu, Nepal*
PHP DEVELOPER — *Mar. 2017 – Nov. 2017*

- Developed a Management Information System (MIS) and an MBA entrance examination application using CodeIgniter and MySQL.

Education

Apex College (Pokhara University) — *Kathmandu, Nepal*
BACHELOR IN COMPUTER INFORMATION SYSTEM — *2012 – Nov. 2016*

- Awarded scholarships in the 3rd, 4th, and 6th semesters for academic excellence and outstanding potential.