

# PURUSHOTTAM KUNWAR

Senior Backend Developer

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## PROFESSIONAL SUMMARY

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Backend-focused software developer with 6+ years of experience designing and building scalable APIs, microservices, and data-intensive systems across fintech, e-learning, logistics, and SaaS platforms. Skilled in Go, Java, Python, and PHP, with deep experience in relational and NoSQL database design, system modernization, and cloud infrastructure on AWS. Comfortable owning backend services end-to-end — from data modeling and API design through deployment and performance tuning — while collaborating closely with cross-functional teams and mentoring junior engineers.

## TECHNICAL SKILLS

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<b>Languages</b>	Go, Java, Python, PHP, SQL, JavaScript (ES6+)
<b>Backend Frameworks</b>	Laravel, FastAPI, Grails, Node.js / Express
<b>Databases</b>	PostgreSQL, MySQL, MongoDB, Oracle, Elasticsearch
<b>Cloud &amp; DevOps</b>	AWS (Lambda, EC2, S3, IAM, CloudWatch), Docker, Terraform, Serverless, CI/CD (GitLab / GitHub Actions)
<b>APIs &amp; Integration</b>	RESTful APIs, GraphQL, WebSocket, OAuth 2.0, JWT, Stripe, PayPal
<b>System Design</b>	Microservices, Multi-Tenancy, RBAC, ETL Pipelines, Data Migration, GDPR Compliance
<b>Dev Tools</b>	Git, JIRA, Postman, Redis, Docker Compose
<b>Frontend (Working Knowledge)</b>	React, Vue.js (2 & 3) — for cross-functional collaboration

## WORK EXPERIENCE

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### Azminds Pvt. Ltd.

Kathmandu, Nepal

#### Assistant Software Engineer → Senior Backend Developer

May 2019 – Present

*Promoted within 18 months; have since worked as backend lead or core developer across the following client engagements.*

#### **NEMCCU** — Accounting Software for Credit Unions (Grails · PostgreSQL)

Led backend modernization of a legacy Java/Grails accounting system used by 50+ credit unions under the Nepal Federation of Savings & Credit Cooperative Unions (NEFSCUN).

- Redesigned core accounting modules — General Ledger, Accounts Payable/Receivable, and payroll.
- Migrated 15+ years of transactional data from Oracle to PostgreSQL using custom reconciliation scripts, achieving zero data discrepancy.
- Implemented double-entry bookkeeping workflows with real-time audit trails and a configurable multi-level chart of accounts, working with CPA advisors on regulatory compliance.

#### **Listen on Repeat** — Media Streaming Platform (Node.js · AWS)

Backend developer for a streaming platform serving 200,000+ monthly active users, focused on looped audio/video playback and radio streaming.

- Built the server-side loop/repeat engine and content delivery pipeline, including pre-fetch caching to reduce playback buffering.
- Designed a GraphQL gateway integrating third-party radio and podcast APIs (iHeartRadio, Spotify) for unified content delivery.
- Implemented JWT-based authentication for secure playback, with media served via AWS S3/CloudFront and WebRTC for real-time features.

#### **Skills Transfers** — Multi-Tenant E-Learning SaaS (Laravel · PostgreSQL)

Core backend developer for a learning management system (LMS) supporting 12,000+ students and 500+ instructors across isolated tenant environments.

- Designed schema-per-tenant data isolation in PostgreSQL with role-based access control (RBAC) in Laravel.
- Built automated PDF certificate generation with dynamic QR codes and an anti-cheat proctoring system for online assessments.
- Implemented SSO and social login (Google, Facebook) via OAuth 2.0, Stripe subscription billing, and SCORM-compliant course delivery.

### **PIMS** — *Nepal Government Pension Management System (FastAPI · Python · Docker)*

Backend lead for the government's pension digitization initiative, migrating paper-based pension administration to a cloud-ready microservices platform.

- Developed FastAPI microservices for pension calculation engines covering service years, dependent classifications, and inflation adjustments.
- Built Python ETL pipelines to migrate 80,000+ manual records into MySQL with field-level encryption for GDPR compliance.
- Containerized services with Docker and built GitLab CI/CD pipelines for zero-downtime deployments; the system has processed 25,000+ pension applications since launch.

### **Yacht Cloud** — *Maritime Fleet Management Platform (Grails · Elasticsearch)*

Backend developer for a B2B SaaS portal used by 150+ yacht brokers and fleet managers for vessel discovery, booking, and contract management.

- Implemented Elasticsearch-powered search with geospatial filters for berth locations, vessel amenities, and dynamic pricing rules.
- Integrated AWS Lambda for on-demand PDF contract generation and S3 for managing 10TB+ of vessel media assets.
- Built booking and payment flows with Stripe and PayPal, and added Redis caching to reduce database load during peak usage.

### **FleetPro** — *Logistics Management System (Laravel · WebSocket)*

Backend developer for a trucking and fleet operations platform, digitizing manual workflows for 500+ vehicle fleets.

- Built modules for maintenance scheduling, fuel consumption tracking, and insurance renewal management in Laravel.
- Developed WebSocket services for real-time GPS tracking, integrated with Mapbox APIs for live vehicle visualization.
- Migrated 50,000+ spreadsheet records into PostgreSQL via scripted ETL processes with validation and deduplication, supporting predictive maintenance alerts.

### **Loyalty Program Platform** — *White-Label SaaS (Laravel · AWS)*

Sole backend developer for a configurable white-label loyalty platform used by retail and food service brands.

- Built a pluggable campaign engine supporting points accumulation, tiered rewards, and referral programs.
- Integrated Mixpanel analytics and automated customer communication workflows via Twilio (SMS) and SendGrid (email).
- Deployed on AWS with autoscaling groups, sustaining 1,200+ requests per minute during peak promotional events.

### **Enterprise SSO Gateway** — *Identity & Access Management (OAuth 2.0 · SAML · JWT)*

Currently architecting a centralized Single Sign-On (SSO) system to unify authentication across internal and client-facing applications.

- Implementing OAuth 2.0 Authorization Code Flow with PKCE and SAML 2.0 federation for enterprise identity provider integration.
- Designing JWT refresh token rotation and secure session invalidation across distributed services, with an admin portal for managing client applications, scopes, and permissions.

## **PERSONAL PROJECT**

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### **SamridhiBazar** — *Loan Management Platform (Go · AWS)*

End-to-end fintech project for bank loan applications, shortlisted for the Nepal Fintech Awards 2022.

- Built RESTful APIs in Go supporting loan application workflows from submission to approval.
- Implemented automated KYC verification via DocuSign integration and credit scoring using the Plaid API.
- Provisioned AWS infrastructure (EC2, RDS, S3) using Terraform for repeatable, version-controlled deployments.

## **EDUCATION**

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### **Bachelor of Computer Information Systems**

Pokhara University, Nepal · 2015 – 2019 · GPA: 3.6 / 4.0

## **LANGUAGES**

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English — Professional Proficiency | Nepali — Native | Hindi — Conversational