

Lakhveer Bawa

Senior Software Engineer | Microservices & Event-Driven Architecture | London, ON, Canada | +1-519-868-0001 |
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About

Senior Software Engineer with 6+ years building scalable distributed systems and high-performance applications. Expertise in microservices architecture, event-driven design, and polyglot engineering across Go, NestJS/TypeScript, and PHP/Laravel. Architected production systems serving 2M+ users with Kafka event streaming, gRPC communication, and real-time WebSocket updates. Proven track record of reducing query times by 40%, processing 100K+ daily requests, and building CQRS-based analytics platforms. Strong foundation in API design, database optimization, and production observability.

Skills

Languages: TypeScript · JavaScript · PHP · Go · Node.js · Python

Backend Frameworks: Laravel · NestJS · Django · Express.js · RabbitMQ

Architecture & Patterns: GraphQL · gRPC · Microservice Architecture · Event Driven Architecture · CQRS · REST APIs

Databases: PostgreSQL · MySQL · MongoDB · Redis · BigQuery

Frontend: Vue.js · React · Next.js · Tailwind · HTML5 · CSS3

DevOps & Infrastructure: Docker · AWS (EC2, S3, Lambda) · Git · CI/CD

Testing: Jest · PHPUnit · Integration Testing · Unit Testing · Cypress

Soft Skills: Leadership · Mentoring · Agile Methodologies

Technical Projects

Pinnacle - Event-Driven Project Management Platform (Side Project)

2025

pinnacle.lakhveerbawa.com | Tech Stack: Go, NestJS, TypeScript, Apache Kafka, gRPC, PostgreSQL, Redis, Docker, React, NextJs, WebSockets, Traefik,

- Architected and built production-grade microservices platform using event-driven architecture with NestJS, Go, Kafka, and gRPC for outcome-based project management.
- Designed and implemented 5 independent microservices (User, Auth, Outcome, Notification, Analytics) with clear domain boundaries, gRPC inter-service communication, and independent deployment lifecycle
- Built API Gateway in Go using Gin framework handling authentication, rate limiting, request routing, and protocol translation (REST to gRPC), serving as single entry point for all external traffic

Professional Experience

Castkro

London, ON, Canada

Founding Engineer / Senior Full Stack Engineer

Jul '24 - Dec '25

- Building two-sided casting marketplace using Laravel, PostgreSQL, Redis, and Docker with multi-tenant architecture supporting production companies and talent agencies
- Delivered a Vue.js, TypeScript and Vuex-based Application Manager; within two months, driving a 95% user adoption rate.
- Built a NestJS microservice architecture for the chat feature using TypeScript and Node.js, resulting in more efficient server resource usage, improved scalability, and cleaner maintainability.
- Developed automated Cypress scripts, PHPUnit Tests for core features, reducing regression incidents by 25% and improving application stability during high-traffic events.
- Implementing an AI-powered talent matching system using Laravel Queues and Redis to process LLM API requests (OpenAI, Claude) asynchronously, reducing manual casting director search time by 70%

Viamo Inc.**London, ON, Canada**

Full Stack Software Engineer

Feb '22 - Jun '24

- Architected content recommendation system serving 2M+ daily users using Laravel API with BigQuery integration, building ETL pipeline processing 500K+ daily events using Laravel Jobs and RabbitMQ with 99.5% uptime SLA
- Developed IVR call handling platform processing 100K+ calls daily using Laravel, Vue.js, Typescript, and RabbitMQ with tree-based execution engine, improving reliability from 94% to 99.5%
- Led engineering standardization initiative across 5 Laravel microservices by introducing PR templates and API response structure using Laravel API Resources, increasing sprint throughput by 15% and reducing frontend debugging time by 30%
- Maintained 85%+ PHPUnit test coverage across core modules and mentored 2 junior developers on TDD workflows, Eloquent optimization, and API design patterns

Indivar Software Solutions**London, ON, Canada**

Full Stack Developer

Mar '20 - Jul '21

- Architected complete ERP system using Laravel 8, React, PostgreSQL, and GraphQL with modular service layer architecture for 12 business modules (Inventory, Accounting, HR, CRM) supporting 50+ client organizations
- Implemented GraphQL API using Lighthouse PHP package, consolidating multiple REST endpoints, reducing frontend API calls by 60% and improving page load times from 4.2s to 1.8s
- Built multi-tenant database architecture with PostgreSQL row-level security ensuring complete data isolation while maintaining sub-100ms query performance through strategic indexing

Freelancer**London, ON, Canada**

Web Developer

Aug '17 - Feb '20

- Built MockReady.com peer-based language practice platform using Laravel 7, Vue.js, Nuxt.js, and AWS implementing real-time matching with Laravel WebSockets and Redis Pub/Sub achieving sub-200ms response times
- Built a warehouse security system with Node.js, Express.js, Arduino, and WebSockets, reducing incident response time by 35% and improving facility safety for 3 warehouses.
- Built 70+ websites with Symfony, React, and WordPress for e-commerce, real estate, and other industries, boosting client business growth.

Education

Fanshawe College - London, ON

Apr '19

Ontario College Diploma | Interactive Media Specialist (Information Technology)

NodeJS, TypeScript, Express, React, Figma, UX Design

FANSHAWE COLLEGE

Jun '18

Other | Business Management

Punjabi University - Punjab, India

May '16

Bachelor of Science (B.Sc.)

Certifications

Software Architecture and Large Scale System Design | Top Developer Academy

Software Architecture of large scale systems, capable of handling millions of requests/day

Server Administration | Udemy - Jason Cannon

Learned Server Administration which is essential to manage the infrastructure

Product Managent: Developing Product Strategy | International Institute of Business Analysis**Advanced Web Development with PHP** | Netmax Technologies

Dec '16