



JAYANT SINGH

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PROFESSIONAL SUMMARY

Engineer who builds production-grade AI systems that solve real business problems.

Currently leading the design and development of an AI-powered Data Integrity Engine at ShortHills AI, combining FastAPI, machine learning, and agentic LLM systems (Google ADK + Gemini) to automate anomaly detection and root-cause analysis. Strong in backend architecture, ML pipelines, and AI integration, with the ability to complete product delivery — from data processing and model design to API development and frontend integration.

SKILLS

- Python
- FastAPI, SQLAlchemy, Pydantic, REST APIs
- Google ADK, Gemini, LiteLLM, Prompt Engineering
- Angular, RxJS, Chart.js
- Playwright, BeautifulSoup
- MySQL (AWS RDS)
- AWS (Secrets Manager), Docker
- GitHub Actions, Background Job
- SSE Streaming, Caching, Connection Pooling,
- C# programming
- ASP.NET development
- Microservices architecture
- API integration
- Unit testing
- PHP, Laravel Framework
- MVC design expertise
- MySQL
- JavaScript
- HTML5
- Full-stack development
- Client communication
- User experience design
- Security principles
- Drupal, WordPress
- Vue.js
- Test-driven development practice
- AWS cloud services familiarity
- OOP design patterns usage
- Git version control familiarity
- LAMP stack experience

EXPERIENCE

Software Engineer 2 / ShortHills AI

08/2021 - Current

- Working as a role of AI Product Engineer / Backend Lead
- Designed and built a production-grade anomaly detection system using a 4-algorithm ensemble (Isolation Forest, Z-score, IQR, STL)
- Developed an autonomous AI agent (Google ADK + Gemini) with 10 tools for root-cause analysis
- Built a 6-step automated pipeline replacing manual workflows (scraping → validation → detection → reporting)
- Implemented real-time streaming APIs (SSE) for AI responses
- Integrated Playwright-based scraping systems for multi-source data ingestion (J2, J3 platforms)
- Designed thread-safe caching and SQLAlchemy connection pooling for scalable backend performance
- Built Angular-based frontend with real-time dashboards and AI chat interface
- Set up CI/CD pipelines using GitHub Actions with AWS-based environment configuration

- I oversee a team of developers, focusing on architecture design, coding standards, and development paths.
- Worked on backend systems across PHP, Laravel, and .NET microservices
- Contributed to WhatsApp API integration and CQRS-based system design
- Migrated legacy systems to AWS Lambda with improved performance and scalability
- Implemented unit testing and improved system reliability
- Collaborated with QA and DevOps teams for production deployments

Web Developer / Trivialworks Solutions Pvt. Ltd. - Lucknow

04/2018 - 04/2020

- I created a full-fledged crowdfunding web application from scratch using Laravel and CodeIgniter. I seamlessly integrated PayPal and Authorize.net payment gateways to ensure secure and convenient transactions.
- I implemented a subscription module with PayPal for recurring donations and integrated Google Location and Kroger API for store search and product donations.
- Managed end-to-end development, ensuring smooth user experience and collaborating with cross-functional teams to deliver a high-quality solution.

PHP Developer / Pamac Finserve Pvt. Ltd. - Pune

04/2018 - 04/2020

- I worked on a support project using CodeIgniter, MySQL, JavaScript, and jQuery.
- Successfully addressed assigned tickets, providing maintenance and support for both Code and Database by resolving bugs.
- I created sample projects with CodeIgniter, Laravel, and Core PHP for learning purposes. I utilized Git for version control.

EDUCATION

Diploma of Higher Education: Bachelor of Technology
Krishna Group of Institutions - Kanpur, UP

2017

- Coursework in C, Asp.Net, HTML, CSS
- Computer Science and Engineering Graduate

Intermediate: Science
Triveni Kashi Inter College - Unnao, UP

2013

HSC: Science
Triveni Shivmaul Singh K.P Singh Memorial Inter College - Raebareli, UP

2011

PROJECTS

- End-to-end ownership (design → deploy)
- AI system architecture & integration
- Automation-first mindset
- Strong backend + ML combination
- Crowdfunding, Insurance, Health Care, Event management, e-commerce, automobile & Inventory management system domain

LANGUAGES

- English
- Hindi