Mahavishnu Ponnusamy

Senior Full-Stack Engineer | Laravel, PHP · React.js, Next.js · FastAPI, Python
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PROFESSIONAL SUMMARY

Senior Full-Stack Engineer with **6+ years** building scalable web applications, REST APIs, and distributed systems using Laravel/PHP, React.js/Next.js, and PostgreSQL/MySQL. Delivered **20+ production systems** handling **lakhs of records daily (10+ rec/sec)** and scaling platforms to **25,000+ monthly users** with **99.9% uptime**. Experienced in Nginx load balancing, cloud/on-premises Linux environments, and integrating AI workflows (FastAPI, LangChain, RAG).

TECHNICAL SKILLS

- **Languages & Core**: PHP, JavaScript, TypeScript, Python, Bash, SQL, OOP
- **Frameworks & UI**: Laravel, React.js, Next.js, Inertia.js, FastAPI, LangChain, Tailwind CSS
- **Databases & Cache**: PostgreSQL, MySQL, Redis, MongoDB, Qdrant
- **DevOps & Cloud**: AWS, DigitalOcean, Docker, Nginx, Linux, Supervisor, CI/CD, GitHub Actions
- **Tools & Testing**: RabbitMQ, Laravel Horizon, OCR, OpenAI API, REST APIs, PHPUnit, Pytest

PROFESSIONAL EXPERIENCE

Hectadata India Technology Consulting Pvt Ltd — ***Remote, Malaysia***

PHP Developer — *Jul 2024 - Present*

- Architected a real-time vehicle enforcement platform (Laravel 12, React 19, Inertia.js) processing **lakhs of records daily (10+ rec/sec)** via RabbitMQ; built a 20-state engine and SOAP registry API, reducing audit time by **~60%**.
- Engineered dual-mode ingestion (RabbitMQ real-time pipeline + PostgreSQL NOTIFY polling fallback) ensuring **zero data loss and 100% data integrity** across **5+ remote sensor stations**.
- Developed an AI legal research platform backend using FastAPI, LangChain, and Qdrant vector search, reducing legal document research latency by **~40%**.
- Integrated **CUPS server-side print automation** and enterprise authentication (RBAC, 2FA) using Laravel Sanctum, securing **10+ internal user roles**.
- Deployed and maintained distributed services across cloud and on-premises Linux servers using **Nginx load balancing**, reverse proxy, Docker, and Supervisor with **99.9% uptime**.

Byrut Business Solutions LLP — ***Remote, Andaman and Nicobar Islands***

Web Developer — *Nov 2020 - Jun 2024*

- Delivered **20+ production web applications** across tourism, e-commerce, and business automation, driving end-to-end architecture, API integrations, and deployments over 4 years.
- Architected and scaled a multi-service tourism booking platform to **25,000+ monthly users** (hotel, ferry, cab, boat) using Laravel, React.js, and MySQL, hosted on **AWS**.
- Developed dynamic tour package pricing logic and ferry booking engines deployed on **Laravel Cloud**; integrated FPDF generating **1,000+ automated monthly quotations** and Razorpay payment gateway.
- Deployed and managed 20+ client applications on **DigitalOcean** droplets via Laravel Forge, utilizing Spaces for object storage and CDN for global asset delivery.
- Built React.js / Next.js administrative portals and multi-vendor e-commerce platforms supporting **30+ active vendors** with automated weekly payout workflows.

PROJECTS

- **WhatsApp Chatbot —** Production chatbot (**FastAPI**, **Meta WhatsApp Cloud API**) for a financial cooperative automating **80%+ of incoming loan FAQs**, human escalation, and broadcast messaging with a **React** admin SPA.
- **AI Search Engine —** Enterprise semantic search platform (**FastAPI**, **React**, **Qdrant**, **LangChain**, **RAG**) with **hybrid vector retrieval**, delivering sub-second (**<500ms**) query responses across document collections.

EDUCATION

Paavai Engineering College — ***Namakkal, Tamil Nadu, India***

B.Tech in Information Technology CGPA: 7.75/10 — *Aug 2017 - June 2021*

AWARDS/CERTIFICATION

- **Research Publication:** Published conference paper on *Blockchain-based invoice factoring and secure credit-based training*.
- **2nd Place Winner:** National-level AI technical symposium paper presentation on Artificial Intelligence.
- **Smart India Hackathon:** Selected and participated in **Smart India Hackathon 2020** nationwide finals.