

Vignesh Pattalam Bharathkumar

Staff Software Engineer, founding engineer of a production applied-AI platform

Open to relocation | EU Blue Card: qualifies on a standard senior-engineer offer, no employer sponsorship required

vigneshpb7@outlook.com

LinkedIn: [linkedin.com/in/pbvignesh](https://www.linkedin.com/in/pbvignesh) | GitHub: github.com/pbvignesh | Portfolio: pbvignesh.github.io

SUMMARY

Staff Software Engineer and founding engineer of ZoomRx's applied-AI platform, with 9 years building production backend, data, and AI systems. Build agentic LLM products (RAG, natural-language analytics, LLM eval loops) that cut analysis from weeks to hours, on a multi-tenant AWS stack. Progressed through four roles, from SDE to Staff, earning broader scope at each step. Strong in Python, LLMs/agents, and AWS, with deep backend heritage in PHP/Laravel.

TECHNICAL SKILLS

- **AI / ML:** Generative AI, LLMs, AI agents, RAG, LLM eval loops, LangGraph, Anthropic SDK, Langfuse, AWS Bedrock
- **Languages:** Python, TypeScript / JavaScript, PHP
- **Backend / Platform:** FastAPI, Flask, distributed systems, Laravel, CakePHP, Node.js
- **Data:** PostgreSQL, MySQL, Redis, Elasticsearch, data modelling & warehousing (star / galaxy schemas)
- **Cloud / Infra:** AWS (EKS, Lambda, SQS, API Gateway), GCP, Docker, Kubernetes, Temporal, CI/CD, Sentry

EXPERIENCE

ZoomRx (remote) Jun 2017 - Present

US-based healthcare AI & analytics firm for pharma and biotech; trusted by 19 of the top 20 global pharma companies.

Staff Software Engineer Apr 2024 - Present

- Founding engineer of **Sagan Agents**, ZoomRx's applied-AI platform. Built the **Data Archive Copilot**, an agent that fans out to skill-loaded subagents and returns **cited** answers over **10 years of structured and unstructured market-research data** (RAG with LLM eval loops), cutting analysis from **weeks to hours**.
- Shipped a **Dashboard Builder** (natural language to live analytics) and a self-improving **evals system** that auto-generates evaluation suites for agent outputs.
- Grew it into a **multi-tenant AWS platform** (FastAPI, Temporal-orchestrated workflows, per-tenant Postgres isolation): **5 clients purchased in the first 2 months** of first demos and **15+ internal teams** adopted it.
- Built a **Gen-AI survey-automation agent** (stateful LangGraph, per-state Langfuse evals) that cut survey programming from **days to minutes**.
- Separately **led a team of up to 7 engineers**: shipped an LLM identity-verification system (verification cut from **48h to 4h**) and a fraud-detection system (**+12% catch rate**).
- Led **containerization and CI/CD** (Docker, AWS EKS) and a company-wide **Sentry** observability rollout.

Senior Software Development Engineer II Oct 2021 - Mar 2024

- Helped build and launch a major AI product, **owning the data layer**, with storage and pipelines handling **millions of records**.
- Defined the company's first **SLOs/SLAs** and ran **sprint delivery and SRE** for a product group, streamlining incident response.
- Led **performance optimization** (query tuning, indexing, Redis caching): **up to 80% faster** load times, and cleared a large Sentry backlog for **~80% fewer** errors.

Senior Software Development Engineer I Oct 2019 - Sep 2021

- Co-built (2-person team) a **company-wide data warehouse** (6M+ rows, star and galaxy schemas), replacing manual data pulls with self-service analytics for every consulting team.
- Overhauled the **support/on-call** function, introduced internal SLOs, and went on to run the support team.

- Ran internal **hackathons** (shipped 4 to 5 features into the core product); led code and design reviews and mentored engineers.

Software Development Engineer *Jun 2017 - Sep 2019*

- Built **Synapse**, a self-serve Tableau-like analytics tool (Laravel/PHP, MySQL, RShiny) that automated reporting and **boosted consulting-team productivity 74%** (measured in Metabase).
- Built the company's in-house **performance-management platform** (ratings, feedback, promotions), used company-wide.
- Replaced fragile PHP table-based queues with an **AWS SQS** pipeline and moved email webhooks to **AWS Lambda** behind API Gateway.

OPEN SOURCE & COMMUNITY

- **Langfuse Python SDK**: merged PR fixing AWS Bedrock token-usage tracking.
<https://github.com/langfuse/langfuse-python/pull/1267>
- **Laravel community speaker**: talks on mail handling, code-organisation best practices, and using Sentry's Apdex score to write faster APIs.

EDUCATION

B.E. Computer Science & Engineering, Saveetha Engineering College *2013 - 2017*

Graduated with 8/10 GPA.

ACCOMPLISHMENTS

- Winner of ZoomRx's Extraordinary Performer award.
- Founded and ran ZoomRx's company-wide hackathon; repeat internal-hackathon winner.

LANGUAGES

English (native / bilingual) | German (A1, working toward A2) | Tamil (native)