

# Shyam Kumar V M

FULL-STACK DEVELOPER (BACKEND-HEAVY | 4 YEARS EXPERIENCE)

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## PROFESSIONAL SUMMARY

Full-Stack Developer with 4 years of experience specializing in backend-heavy systems, AWS serverless architectures, and scalable APIs for healthcare platforms. Proven track record of building HIPAA-compliant production systems, optimizing database performance by 40%, and delivering reliable applications used by 1,000+ users. Strong in system design, cloud infrastructure, and performance optimization with a focus on real-world business impact.

## TECHNICAL SKILLS

**Backend & APIs:** Node.js, Python, FastAPI, Express.js, RESTful APIs, Serverless Architecture

**AI & LLM Frameworks:** LangChain, LangGraph, Google Gemini Pro, RAG (Retrieval Augmented Generation), ChromaDB, MCP Protocol

**Cloud & DevOps:** AWS (Lambda, S3, EC2, RDS, DynamoDB, CloudFront, SES, CloudFormation), Docker, AWS Fargate, ECS, CI/CD, GitHub Actions

**Databases:** PostgreSQL, MongoDB, Drizzle ORM, Database Design, Query Optimization, Indexing and Partitioning

**Frontend:** Next.js, React, TypeScript, JavaScript (ES6+), HTML5, CSS3, Tailwind CSS, Shadcn/UI

**Tools & Integrations:** Stripe Payments, Webhook APIs, Real-time Analytics, Performance Optimization, Sharp Image Processing

## PROFESSIONAL EXPERIENCE

### Senior Full-Stack Developer

Feb 2024 – Present

CyberSapient Technologies

Remote

- Led backend architecture and development of a HIPAA-compliant Electronic Health Records (EHR) platform serving 1,000+ healthcare providers and processing 5000+ patient records daily with zero security incidents
- Improved PostgreSQL performance through strategic indexing and table partitioning, resulting in 40% faster query response times
- Designed and implemented a serverless CSV data processing pipeline using AWS Lambda, S3, and CloudFormation for automated ingestion workflows
- Established CI/CD pipelines with GitHub Actions, Docker, and AWS Fargate (ECS), reducing build and deployment cycles to approximately 8 minutes
- Integrated DrChrono Webhooks and AWS SES to automate data synchronization and email notifications, reducing manual data entry by 75%
- Built a real-time analytics dashboard using Next.js and Shadcn/UI, improving operational metric access speed by 30%
- Made architectural decisions balancing serverless versus containerized workloads based on cost, scalability, and deployment velocity

### Full-Stack Developer

Jan 2022 – Jan 2024

Ethernex IT Solution

Remote

- Developed responsive, production-ready user interfaces using CSS Grid and Flexbox across desktop, tablet, and mobile devices
- Collaborated with UI/UX designers to deliver business dashboards for daily operations and KPI monitoring
- Built RESTful APIs for an e-commerce platform using Node.js with robust validation, error handling, and rate limiting
- Optimized MongoDB performance through indexing, query tuning, and improved data modeling strategies
- Created automated CSV data parsers to streamline data ingestion and database synchronization processes

## KEY PROJECTS

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### Tech Blog AI — AI-Powered Technical Content Assistant

2025

*Python 3.11+, FastAPI, LangChain, LangGraph, Gemini Pro, ChromaDB, PostgreSQL, Redis, Docker, RAG*

*AI Engineering Project*

- Built an AI-powered system to automate technical blog research, outline generation, draft writing, and SEO optimization using LLM agents
- Designed multi-step, stateful agent workflows (Research → Outline → Draft → Review → SEO) using LangGraph for deterministic orchestration
- Implemented Retrieval Augmented Generation (RAG) with ChromaDB to provide research-backed, citation-aware content generation
- Integrated Google Gemini Pro with structured output validation using Pydantic models, reducing response inconsistencies by 95%
- Reduced end-to-end content creation time from 6–8 hours to under 3 minutes through full workflow automation

### Serverless Image Transcoding Pipeline

2025

*AWS Lambda, S3, CloudFront, DynamoDB, Node.js, Sharp, CloudFormation*

*Cloud Architecture Project*

- Architected an event-driven serverless image processing pipeline to automatically transcode uploads into optimized formats (WebP, JPEG)
- Handled up to 1,000 requests per second with 2–5 second processing latency for 800×600 images
- Achieved approximately 75% image size reduction and sub-100ms global delivery using CloudFront
- Designed cost-optimized infrastructure leveraging serverless patterns, achieving near-zero operational costs

## EDUCATION

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### Mangalam College of Engineering

2005 – 2009

*Bachelor of Technology in Computer Science*

*Kerala, India*