

Prashanth Sreepathi

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SUMMARY

Senior Full-Stack Engineer with 8+ years of experience delivering data-heavy platforms and cloud-native services, with a strong DevOps foundation and hands-on AI integration. Leads cross-functional teams, owns end-to-end system design, and ships scalable applications using Laravel, NestJS, and modern frontend frameworks. Strengths include API design, microservices, CI/CD, AWS, data pipelines, and automation.

CORE SKILLS

Backend: Laravel, NestJS, Node.js, REST APIs, OpenAPI, Microservices, gRPC, WebSockets, RabbitMQ

Frontend: Angular, Vue, React, Inertia.js, Tailwind CSS, Bootstrap

Languages: PHP, TypeScript, JavaScript, Python, Node.js

Databases: PostgreSQL, MySQL, Redis, MariaDB, MongoDB, Elasticsearch

Cloud/DevOps: AWS (EC2, RDS, S3, CloudWatch, ECS, CloudFront, Route 53, Lambda, API Gateway, IAM, SNS, SQS, SES, Secrets Manager, SAM, VPC), Docker, GitHub Actions, GitLab CI, Terraform, Kubernetes, Ansible, Helm Charts, Argo CD

Observability: Grafana, Prometheus, Loki, Alert Manager, Promtail

AI/Automation: LLM integration, AI agents, prompt engineering, automation workflows, n8n, Claude Code, Codex

External Services: Stripe, Cloudflare, Google APIs, Telegram API

PROFESSIONAL EXPERIENCE

Software Engineer II - KBR Inc (Contractor to USGS EROS)

Sioux Falls, SD | Oct 2018 - Present

- Lead engineer for GeoEngine 5, FEWS, and FFI, overseeing architecture, delivery, and reliability of data-processing and data-depot platforms.
- Built scalable REST and event-driven APIs using domain-driven design and microservices for high-throughput workflows.
- Owned application design, database design on GeoEngine project.
- Implemented caching strategies with Redis, optimized SQL queries, and improved API response time and stability.
- Designed CI/CD pipelines and automated code review by building agents for GitLab to increase developer throughput and consistency.
- Served as release manager for GeoEngine 5 and FFI across dev, stage, and production environments.
- Supported AWS-based deployments and operations for production services (EC2, RDS, S3, CloudWatch).
- Collaborated with data scientists and stakeholders to translate domain requirements into production-ready features.
- Managed and mentored a 12-person team; handled planning, delivery, and project ownership across multiple initiatives.
- Integrated LLM-powered automation for code review and workflow efficiency using Claude Code and internal automation pipelines, saving 3-4 hours each week.
- Built AI agents to generate sprint-ready Jira tickets for GeoEngine 5 using the Jira MCP server, saving 3-5 hours per two-week sprint.

Key Projects:

- GeoEngine 5: Laravel, Python, Livewire, Alpine.js, Tailwind CSS, RabbitMQ, PostgreSQL, Redis.
- FEWS: Laravel, MySQL, Inertia.js, React, Tailwind CSS.
- FFI: NestJS, TypeScript, React, Tailwind CSS, Microservices, PostgreSQL.
- MTBS ETD: Laravel, Vue, Bootstrap.

Software Developer - Contract (Nuance Data Migration)

Omaha, NE | Jun 2018 - Oct 2018

- Migrated legacy Java workflows to Spring Boot batch processing with MongoDB.
- Built daily batch ingestion to synchronize Oracle data to MongoDB via REST APIs.
- Implemented data validation, error handling, and reprocessing for high-volume batch runs.
- Coordinated with onshore/offshore teams for issue triage, QA fixes, and delivery.
- Participated in technical design discussions, sprint updates, and deployment readiness.
- Documented migration steps and operational runbooks for handoff and support.
- Tuned batch performance and monitored jobs to meet daily ingestion windows.

Tech Stack: Java, Spring Batch, MongoDB, REST APIs, Batch Processing

Junior Software Developer

Memphis, TN | Mar 2018 - Jun 2018

- Contributed to migration of a legacy Windows employee registry to a web application.
- Implemented CRUD modules, participated in sprint planning, and resolved QA defects.
- Built UI and backend components, validated data workflows, and supported user acceptance testing.
- Implemented role-based access patterns and basic audit trails for registry changes.
- Collaborated with a small team to deliver features end-to-end on tight timelines.

Tech Stack: Java, JSP, JSF, MySQL, Bootstrap, HTML, JavaScript

Research Assistant - University of South Dakota

Vermillion, SD | Jun 2016 - Jan 2017

- Implemented image change detection algorithms on MODIS satellite imagery using Python raster data processing libraries.
- Analyzed temporal geospatial data to detect and report earth surface changes over time.
- Produced change detection outputs to support research and interpretation of geographic trends.

PROJECTS

GeoEngine 5 - Geospatial Data Processing Platform

- Built a high-throughput platform that processes large raster datasets and produces statistics for multiple regions and time periods.
- Implemented job orchestration, distributed processing, and cache layers to support daily, dekad, and monthly products.
- Supported downstream USGS programs with reliable access to derived geospatial metrics.
- Delivered operational dashboards and alerting hooks to track pipeline health.
- Improved data processing reliability with idempotent workflows and retry strategies.
- Hardened batch workflows with backfill and reprocessing capabilities for historical datasets.
- Deployed processing workloads on AWS and integrated cloud storage for raster inputs/outputs.
- Used CloudWatch and IAM-aligned access controls to monitor jobs and secure data access.

FEWS NET Data Portal - Famine Early Warning System

- Delivered geo-spatial data access and monitoring tools to support drought analysis workflows.
- Built APIs and UI modules for data discovery, access, and reporting used by scientists and analysts.
- Optimized data access paths for large geo-spatial catalogs and map layers.
- Coordinated releases to align with seasonal reporting needs and stakeholder reviews.

FFI - FEAT/FIREMON Integrated

- Migrated legacy Windows applications to a modern web platform with event-based microservices and CQRS patterns.
- Implemented data collection, storage, and analysis modules for ecological monitoring.

- Designed service boundaries and event schemas to support long-term ecosystem data growth.
- Built administrative tooling to manage field data and validation workflows.
- Implemented role-based access controls and audit-friendly data flows for multi-agency usage.
- Streamlined field data review and approval workflows to reduce manual reconciliation.
- Deployed services across AWS environments with cloud-backed storage and monitoring.
- Supported secure access patterns and least-privilege permissions for multi-agency users.

MTBS ETD - Modern Trends in Burn Severity

- Delivered a web-based admin application to manage fire events and mapping metadata at scale.
- Supported nationwide coverage for burn severity and extent data across the continental U.S., Alaska, Hawaii, and Puerto Rico.
- Streamlined data entry and validation for fire event records and metadata.
- Implemented reporting views for analysts to track processing status and history.

Nuance - Data Migration

- Migrated legacy systems to Spring Boot batch processing and MongoDB.
- Built daily ingestion and validation workflows to keep datasets synchronized.
- Developed monitoring and alerting hooks for batch failures and data anomalies.
- Automated reconciliation checks to verify completeness after each run.

Eventura - Full-Stack Event Management Platform

- Built a production-ready event platform with Laravel 12, Inertia v2, Vue 3, Tailwind v4, and Vite.
- Designed end-to-end workflows for event creation, RSVP, attendee management, and order history.
- Integrated Stripe Checkout and webhook-driven order finalization.
- Implemented transactional email via Amazon SES with SNS bounce/complaint handling and S3/CloudFront media delivery.
- Added tests and CI-friendly quality gates with Pest v4, Pint, ESLint, and Prettier.
- Implemented bot protection and secure media hosting with CDN-backed access controls.
- Added operational health endpoints and background job monitoring for reliability.
- Implemented observability stacks with Grafana, Loki, and Prometheus for log analysis and metrics monitoring.
- Automated daily database and Redis backups using n8n workflows.
- Operated cloud services on AWS (S3, CloudFront, SES, SNS) for storage, delivery, and email automation. URL: <https://goeventura.com>

BuildWithCode - Technical Blog

- Built a static blog with Hugo (Congo theme) and Tailwind-based styling.
- Automated CI/CD via GitHub Actions with OIDC-based deployment to AWS S3.
- Integrated Utterances comments and Firebase newsletter subscriptions.
- Improved performance with WebP images, lazy loading, asset fingerprinting, and SEO configs.
- Added content automation workflows and scheduled builds for consistent publishing.
- Tuned caching headers and CDN settings for faster global delivery.
- Managed Cloudflare DNS, WAF geo rules for US-only traffic, and static asset caching.
- Operated the site on AWS S3 with CI-driven deployments and production-ready hosting. URL: <https://buildwithcode.dev>

CERTIFICATIONS

- AWS Certified Developer - Associate Certificate Credential
- Preparing for CKA certification

AWARDS

- ONE KBR Award Winner - 2025
- ONE KBR Award Winner - 2023

- FFI Team Award Winner - 2022
- ONE KBR Award Winner - 2021
- ONE KBR Award Winner - 2019

EDUCATION

- Master's in Computer Science, University of South Dakota, Vermillion, SD
- Bachelor of Electronics and Communication Science, Vidya Jyothi Institute of Technology, JNTU Hyderabad