GANESAN S

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PROFESSIONAL SUMMARY

Full Stack Software Engineer with 5 years of expertise in **large-scale search systems** and **knowledge graph infrastructure**. Proficient in Elasticsearch, hybrid retrieval (vector + keyword), and ML-driven pipelines, with a focus on **low-latency distributed search** and **cross-functional collaboration** with data scientists/ML teams

EDUCATION

University of Florida – Master's in Computer Science	GPA: 3.61/4.00		*Aug 2021 – May 2023*
SRM University, India – Bachelor's in Computer Science	CGPA: 8.844/10		*July 2014 – May 2018*

TECHNICAL SKILLS

Programming Languages: Java, Python, TypeScript
Backend Development: Spring Boot, RESTful APIs, Microservices, GraphQL
Search & Data Tools: Elasticsearch/OpenSearch, Neo4j, Apache Kafka, Redis VectorDB, PostGIS, Distributed Search, Knowledge Graph Infrastructure
ML/AI: TensorFlow, spaCy, GloVe embeddings, **LLM Fine-Tuning (BERT)**, A/B Testing
Cloud: AWS (Lambda, ECS, S3), Azure (SQL, Blob Storage)
Databases: PostgreSQL, MongoDB, DynamoDB

WORK EXPERIENCE

Maxil Technology Solutions | Full-Time | *Software Engineer* | Oak Brook, IL   *May 2024 – Present*
Product Description: Job Board for contract IT roles

- Built a semantic job recommendation engine using spaCy NLP and PostgreSQL/pgvector, improving candidate-job match accuracy by **35%** for **1M+ daily users** through hybrid keyword/vector search.
- Architected a graph-based referral system with Neo4j, **optimizing distributed search** for real-time relationship analysis across **10M+ professional profiles**, boosting referral-to-hire conversion by **25%**.
- Engineered a real-time clickstream pipeline with Apache Kafka, **collaborating with data scientists** to A/B test ranking algorithms based on user engagement signals (clicks, dwell time).

BestRx Pharmacy Software | Full-Time | *Full Stack Engineer* | Oak Brook, IL   *Aug 2023 – Apr 2024*
Product Description: Pharmacy Management Suite (Point of Sale, Inventory, Medical Billing)

- Accelerated drug interaction checks by integrating Medi-Span® API with **distributed Redis vector embeddings**, reducing lookup latency by **50%** for **5K+ daily prescriptions** via hybrid keyword/semantic search.
- Designed a batch processing pipeline for insurance claims using Java thread pooling, **partnering with ML engineers** to optimize claim validation rules, processing **10K+ claims/day**.
- Enforced **HIPAA-compliant data access** via RBAC and audit trails, securing PHI data for 500+ pharmacies.

Autoreview.ai | Intern | *Software Engineer Intern, AI/ML* | Gainesville, FL   *May 2022 – Dec 2022*
Product Description: Document Manager for Construction Companies

- Developed a regulatory compliance microservice using TensorFlow and Redis VectorDB, **fine-tuning BERT for document classification** to achieve **92% accuracy** in flagging non-compliant clauses across **10K+ legal documents**.
- Engineered GIS flood-risk workflows with PostGIS/Google Maps API, **scaling geospatial queries** to analyze **50K+ construction sites** and identify **1,200+ high-risk zones**.
- **Automated license key lifecycle management** using Django and MongoDB, **reducing manual oversight by 80%** through AES-encrypted key generation and expiry tracking

Infosys | Full-Time | *Senior Software Engineer* | Chennai, India   *Jul 2018 – Jul 2021*
Product Description: Information System for Subsidized Housing Projects

- Migrated **100+ TB of legacy data** to Azure SQL, enabling complex spatial queries (e.g., housing density analysis) with **4x faster performance** for **50+ government offices**.
- **Implemented Azure Blob Storage** with lifecycle policies and client-side encryption (AES-256), cutting storage costs by 40% while adhering to data residency rules.
- Built **22 Power BI dashboards** for real-time housing allocation analytics, **collaborating with data analysts** to reduce audit time by **70%**.