# Sreeram Ganesan

*Technical Lead*

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**Location:** Bangalore | **LinkedIn**: sreeram-ganesan

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**Skills**

Golang, Python, Ruby, Java Gin, FastAPI, Rails, JBOSS, Postgres, MongoDB, PGVector, Redis, Memcache, ElasticSearch, Neo4j, DuckDB, Active MQ, Layer7 API GW, Ansible, Terraform, Docker, Kubernetes, Langchain, LangGraph, H3, Sentence-Transformers. Git. AWS, GCP, Azure.

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**Summary**

Tech Lead with over a decade of experience in architecting, developing, and delivering scalable, high-performance software systems. Expertise in cloud computing, microservices, geo-spatial data engineering, RAG, DevOps, AI agentic frameworks. Proven track record leading teams in building innovative solutions and driving technological advancements. Passionate about solving complex engineering challenges and aligning cutting-edge technology with strategic business objectives. Experienced in guiding teams to optimize performance, enhance efficiency, and deliver transformative solutions.

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**Work Experience**

**Diligenta – Tech Lead II (2024 – Present, Edinburgh)**

- Architected and shipped an AI-agentic research engine that chains open-source Llama-3 models with vector-grounded search and an optional human-in-the-loop safety gate. The system pushed factual-accuracy audits from 88 % → 97 %.
- Hybrid Search & Retrieval: Engineered a hybrid retrieval system by fusing FAISS (semantic) and BM25 (lexical) search with Reciprocal Rank Fusion (RRF). This approach improved grounding fidelity and reducing off-topic results.
- Data Enrichment: Built robust data integration pipelines that performs intelligent site-graph navigation and extraction from web pages.
- Unified Place Graph: Designed a canonical entity model and H3-based conflation pipeline that merged multi-source POI data; lifted merge precision to > 95 %.
- Incorporated usage of reverse proxy to integrate legacy systems with modern microservices, enabling seamless data exchange and phased modernization.
- Tech Stack: Golang, Python, LangGraph, H3, Postgres, Redis, DuckDB, PGVector, Terraform

**Diligenta – Tech Lead I (2022 - 2024, Edinburgh)**

- Responsible for leading the team migrating a legacy on-prem API Gateway solution to cloud for a UK-based insurance customer.
- Led a team to implement payment enhancements integrating Google and Apple Pay, resulting in a 10% increase in payment volumes.
- Built an in-house URL shortener microservice and deployed to production under a week.

- Developed an in-house 2FA system, due to lack of support from IDP based on a white paper – RFC-6238 as an interim solution;  bridging the gap on a crucial feature for interim for customer.
- Created a comprehensive e-Signature solution, reducing document signature turnaround by 50% for advisors in a major pension firm in Scotland.
- Tech Stack: Golang, Java, Broadcom Layer7 (API GW), Ionic (Angular), Apache Fuse, MongoDB, Redis, S3, Docusign

**TCS - Senior Engineer (2018 - 2022, Bangalore)**

- Developed an end-to-end SSO solution for a UK customer utilizing Forgerock as IDP.
- Migrated core backend infrastructure from AWS ECS to Azure Kubernetes Services.
- Implemented semantic document search as a microservice.
- Tech Stack: OAuth 2.0, Forgerock (IDP), Angular, Micro Frontends (MFE), Kubernetes, Ansible, Terraform, Python

**TCS - Software Engineer R&D (2016 - 2018, Chennai)**

- Built a nudging platform integrated within MS Teams using Bot Framework and adaptive cards.
- Developed a high-performance WebSocket messaging server handling over 40 million messages/day.
- Enhanced mentor-mentee matching success rate by 30% using an AI-driven recommendation engine.
- Tech Stack: Golang, ElasticSearch, AWS Lambda, AWS Lex, Ruby on Rails, WebSocket, Neo4j, Postgres, Ansible, Terraform

**Advisory Board Company - Associate Engineer (2014 - 2016, Chennai)**

- Developed an HMAC-based authentication library decoupling authorization logic.
- Created a webhook framework facilitating intra-system communication and CI/CD pipeline integrations.

**Advisory Board Company - Intern (2014, Chennai)**

- Implemented a spell corrector for medical terminology using advanced ML techniques.

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**Education**

**B.Tech - Computer Science & Engineering, Amrita School Of Engineering (2010 - 2014)**