

Gokulraj M

Software Engineer · Google Cloud & Looker Developer · Full-Stack AI Engineer

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Software Engineer at Tata Consultancy Services (TCS) specializing in Google Cloud Platform, Looker, and LookML, delivering production analytics solutions for enterprise teams. Builds full-stack AI applications end-to-end, from RAG pipelines and LLM integration to deployment and DevOps. Combines a strong cloud/data foundation with hands-on AI engineering, shipping a live, production-deployed AI learning platform independently.

EDUCATION

SRM Institute of Science & Technology

Trichy, Tamil Nadu

B.Tech – Computer Science Engineering

May 2021 – Jul 2025

CGPA: 7.83

TECHNICAL SKILLS

Languages

Java, Python, JavaScript, C#, C++, SQL

Cloud & BI

Google Cloud Platform (GCP), Looker, LookML, BigQuery, Cloud Storage, Dataflow

AI / LLM Engineering

RAG pipelines, LLM integration (Groq), vector databases (ChromaDB), prompt engineering, embeddings (Cohere)

Backend

Node.js, Express, REST APIs, JWT auth, PostgreSQL, async/await architecture

Frontend

React, Vite, TailwindCSS, responsive/mobile-first UI

DevOps & Deployment

Railway, Vercel, Docker, environment configuration, DNS/domain management

Databases

PostgreSQL, SQL, Firebase (NoSQL), ChromaDB (vector store)

Game Dev

Unity 3D, Blender, Maya, XR Interaction Toolkit

Tools

Git, GitHub, IntelliJ, Postman

Concepts

OOP, Data Structures & Algorithms, System Design, Microservices

CERTIFICATIONS

- HackerRank — Java (Certified)
- HackerRank — JavaScript (Certified)
- CodeChef — Python
- AR/VR Game Development — CDAC Pune
- Google Cloud — Fundamentals

PROFILE LINKS

GitHub

github.com/gokulraj9488

Portfolio

gokul.quest

LinkedIn

linkedin.com/in/gokul-raj3003

EXPERIENCE

Tata Consultancy Services (TCS)

Software Engineer, Google Cloud / Looker Developer

Dec 2025 – Present

Chennai, Tamil Nadu

- Design and develop production-grade LookML models, views, and explores on Google Cloud Looker, enabling self-serve analytics for business teams.
- Optimized BigQuery SQL queries, reducing average dashboard load time by ~35%.
- Built 10+ Looker dashboards across Finance, Operations, and Marketing teams.
- Implemented row-level security and access-group policies in LookML for multi-tenant data governance.
- Collaborated with data engineers on GCP pipelines (Dataflow, Cloud Storage, BigQuery).

NIT Trichy

Game Developer Intern

Sep 2024 – Oct 2024

Trichy, Tamil Nadu

- Shipped a full game on online-bullying awareness using Unity and C#, owning the end-to-end lifecycle from design through deployment.
- Optimized frame-rate and implemented engaging game-loop mechanics.

MIC Chennai

VR Developer Intern

Aug 2023

Chennai, Tamil Nadu

- Built immersive VR experiences using Unity's XR Interaction Toolkit and C#, improving simulation fidelity and app performance through iterative testing.

PROJECTS

Kuriosity — AI-Powered Student Learning Platform

kuriosity.gokul.quest

React, Vite, Node.js, Express, PostgreSQL, ChromaDB, Groq (LLM), Cohere (Embeddings), Resend, Railway, Vercel

- Architected and shipped a full-stack RAG application end-to-end: users upload study material (PDF/PPT) and teach an AI student ("Kurio") who asks context-grounded questions, evaluates answers, and tracks topic mastery across sessions.
- Built a custom RAG pipeline — PDF parsing, chunking, vector embeddings (Cohere), and similarity search via ChromaDB — to ground every AI response in the uploaded source material rather than relying on the LLM's general knowledge.
- Engineered an LLM evaluation engine that scores free-text student answers against retrieved source chunks, returning accuracy percentage, missing concepts, and targeted revision topics as structured JSON.
- Designed a cross-session topic-memory system using PostgreSQL to track per-user topic strength (weak/developing/strong), enabling the AI to intelligently revisit previously struggled concepts.
- Implemented JWT authentication with email OTP verification (Resend), rate limiting, parameterized queries, and CORS hardening for production security.
- Deployed and operated a three-platform production architecture (Vercel frontend, Railway backend and vector DB, custom domain with DNS/SSL via GoDaddy), independently resolving cross-service environment configuration, CORS, and third-party API rate limits under real production load.
- Built a fully responsive mobile UI with live upload-status feedback and an auto-resizing chat composer, alongside an in-app analytics dashboard surfacing learning accuracy and topic-level progress.

Violence Detection & Alert System

YOLOv6, MobileNetV2, Python

- Built a real-time computer vision pipeline that detects violent activity in video streams and automatically triggers safety alerts.

Student Management System

github.com/gokulraj9488

Java, OOP

- Full-featured CLI application for CRUD operations on student records, built with clean object-oriented design.

Road Safety Surveillance

Python, Computer Vision, Machine Learning

- Computer-vision system that identifies and tracks road-safety violations in real time.