Gokulraaj Vaithiyanathan

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ACHIEVEMENTS & AWARDS

- Ranked in top 1% percentile nationally in JEE Mains and JEE Advanced, two of India's most competitive engineering entrance examinations
- Secured All India Rank 18 in NEST (National Entrance Screening Test) for science aptitude
- Awarded Best Performer of the Year 2025 at Citi for outstanding technical contributions and measurable business impact
- Runner-up at Agentic AI Hackathon organized by RapidClaims AI; built a production-grade AI agent under competition constraints
- Multiple podium finishes in 100m, 200m, 4x100m, and 4x400m relay at national-level athletic competitions

EXPERIENCE

Citi July 2023 - Present

Application Developer 2 Chennai, India

- Migrated a legacy PL/SQL-based scheduling system to a modern Java domain-driven microservices architecture, improving scalability, modularity, and long-term maintainability
- Led transformation of a monolithic job scheduler into a distributed system using Apache Kafka and Spring Boot, achieving 3x scalability and 40% reduction in job execution latency
- Optimized scheduling workflows using Apache Ignite distributed caching to support 5x more concurrent jobs, boosting throughput and reliability at scale
- Optimized CI/CD pipelines through parallelization and stage refactoring in Jenkins, reducing average build execution time by approximately 2x
- Improved service delivery efficiency by 60% through backend process virtualization, significantly reducing client onboarding time
- Built an in-house performance monitoring wrapper using Spring AOP and Spring Boot Actuators to track service health and latency with minimal runtime overhead

Citi May 2022 - July 2022

Summer Analyst Intern Chennai, India

- Built reusable utility functions using Apache Hive for large-scale big data processing and ETL pipeline optimization
- Collaborated in agile sprints for iterative delivery and gained hands-on exposure to the existing distributed big data architecture

PROJECTS

Multi-Agent Financial Analysis System | *Python, OpenAI GPT-4, LangChain, ChromaDB, FastAPI*

- Designed and built a RAG-powered multi-agent orchestration system for automated analysis of company financials including 10-K filings, earnings reports, and structured financial tables
- Implemented a triage-routing architecture that intelligently dispatches tasks across specialized expert agents for summarization, financial ratio analysis, trend detection, and question answering
- Built image, table, and spreadsheet-aware document chunking with context compression and semantic caching to minimize token usage and reduce LLM inference cost without loss of accuracy
- Used OpenAI text embeddings with ChromaDB as the vector store enabling low-latency semantic retrieval across large financial document corpora

RSVP - WhatsApp-Native Guest Management SaaS | *Next.js, Supabase, PostgreSQL, WhatsApp Flows API, shadcn/ui*

- Built a full-stack SaaS platform for event guest management using WhatsApp as the primary RSVP channel, allowing guests to respond natively inside WhatsApp without being redirected to external links
- Integrated WhatsApp Flows API to deliver interactive in-chat RSVP forms, achieving near-zero friction for attendees while giving hosts real-time response tracking
- Designed a multi-tenant backend on Supabase with PostgreSQL and row-level security for strict data isolation across event organizers; implemented OAuth 2.0 via Google and Facebook for host onboarding
- Built a host-facing dashboard using Next.js and shadcn/ui for live RSVP tracking, guest list management, and event analytics

Happy Hunt - Progressive Web App | *React, Node.js, Material UI, DigitalOcean, NGINX*

- Implemented secure JWT-based authentication and a responsive UI using React and Material UI; redesigned client-side navigation with React Router for improved maintainability
- Added Progressive Web App (PWA) capabilities for offline usage; deployed on DigitalOcean with NGINX reverse proxy for scalable production performance

Disaster Event Location Prediction from Tweets | *Python, BERT, Scikit-learn, NLP*

- Built a real-time disaster detection pipeline that streams tweets, filters disaster-related content, and extracts named entities using NLP preprocessing
- Fine-tuned a BERT model to predict geographic locations of disaster events from tweet text and metadata, enabling rapid situational awareness for emergency response

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, TypeScript

Backend & Systems: Spring Boot, Apache Kafka, Redis, Node.js, GraphQL, REST APIs, AOP

AI and Machine Learning: OpenAI APIs, LangChain, RAG, ChromaDB, NumPy, Pandas, Scikit-learn, TensorFlow, NLTK

Frontend: React.js, Next.js, TailwindCSS, shadcn/ui

Databases: PostgreSQL, Oracle DB, MongoDB, Redis, Supabase, Apache Hive

DevOps and Tools: Docker, Jenkins, Git, Linux, NGINX, Spring Boot Actuators

Certifications: Confluent Certified Data Streaming Engineer | Supervised Machine Learning: Regression and Classification | RESTful API with HTTP and JavaScript

EDUCATION

National Institute of Technology Tiruchirapalli 2019 - 2023
B.Tech in Computer Science and Engineering | CGPA: 7.65 / 10

The Velammal International School, Chennai 2019
Class XII, CBSE | 93.2%

A.K.T Memorial Vidya Saaket Secondary School 2017
Class X, CBSE | 10 / 10

POSITIONS OF RESPONSIBILITY

- **Spider R&D Club, NIT Trichy - Senior Web Developer and Mentor:** Led and mentored the web development team, oversaw complex projects, and drove technical innovation across the club
- **Vortex NITT (Annual CSE Symposium) - Head of Core Student Group:** Organized and executed the annual CS department symposium, managing a team of volunteers across multiple parallel events
- **Sports Council NITT - Athletics Team Captain and Treasury Handler:** Led the athletics team at national-level competitions; managed sports council finances ensuring accountability