Gautam Krishna M

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EDUCATION

VIT University — Vellore, India
Master of Technology in Computer Science & Engineering; CGPA: 8.76/10 — *2024 – 2026*
- **Research:** Actively researching emerging technologies and industry trends through work on (1) RAG-based music recommendation systems, and (2) Quantization-Aware Training for LLMs to compress models.

Amrita Vishwa Vidyapeetham — Amritapuri, India
Bachelor of Technology in Computer Science & Engineering; CGPA: 8.51/10 — *2020 – 2024*

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, C++, SQL
AI/ML & Data Science: PyTorch, TensorFlow, Scikit-learn, LangChain, OpenAI API, Gemini API, NumPy, Pandas, Quantization, NLP, RAG Systems, Vector Embeddings
Frontend Frameworks: React, Next.js, Vite, HTML5, CSS3, Tailwind CSS
Backend & APIs: Node.js, Express.js, Flask, RESTful APIs, Microservices Architecture, WebSocket, tRPC, JWT
Databases: PostgreSQL, MySQL, MongoDB, Supabase, Database Design, Query Optimization, Data Integrity
DevOps & Tools: Version Control Systems (Git), Docker, Vercel, Cloudflare Tunnel, Code Review

PROFESSIONAL EXPERIENCE

Full-Stack Developer (Freelance) — Jun 2025 – Sep 2025
Al Shurooq Printing Press L.L.C. — *Oman (Remote)*
- Architected and deployed full-stack workflow management system serving 20+ employees with React/TypeScript frontend on Vercel and Node.js/Express microservices backend containerized on QNAP server, reducing order processing time by 40% and eliminating 95% manual paperwork.
- Engineered RESTful APIs and designed a PostgreSQL database schema ensuring data integrity and role-based access control; implemented automated PDF generation for invoices and Cloudflare Tunnel for secure remote connectivity.
- Conducted code reviews, implemented comprehensive error handling, and actively troubleshot production issues to maintain 99.9% uptime, demonstrating deployment expertise in a production environment.

RESEARCH & TECHNICAL PROJECTS

Quantization-Aware Training for LLMs | *PyTorch, TensorFlow, NumPy, Pandas* — Aug 2025 – Present
- Committed to advancing AI optimization, independently conducting research on mixed-precision quantization methods for large language models, implementing sensitivity analysis algorithms to determine optimal bit-widths per layer, demonstrating strong analytical and problem-solving skills in artificial intelligence optimization.

AI-Powered Ticketing System | *React, Express.js, MongoDB, Gemini API, Inngest, JWT* — Oct 2025 – Present
- Designed and developed intelligent support ticketing platform with machine learning classification using Gemini API achieving 85%+ accuracy for automated categorization and sentiment analysis, demonstrating full-stack development expertise and highly motivated approach to solving complex problems.
- Implemented microservices architecture with event-driven workflows for asynchronous AI processing, utilizing MongoDB database design and RESTful APIs to handle 1000+ concurrent tickets, showcasing strong communication skills in translating requirements to technical solutions.

Meet AI – Real-Time AI Video Platform | *Next.js, OpenAI API, PostgreSQL, tRPC* — Jun 2025 – Aug 2025
- Developed full-stack SaaS video conferencing platform integrating OpenAI Realtime API for natural language processing, enabling customizable AI agents with contextual conversations and managing 1000+ concurrent sessions, demonstrating interpersonal skills in user-centric design.
- Engineered the complete software development lifecycle, applying robust software engineering practices from requirements gathering to deployment; implemented an NLP-driven analysis pipeline with PostgreSQL database for automated summary generation and transcript creation.

LEADERSHIP & AWARDS

Web SIG Lead, ACM Student Chapter | Led team of 15+ developers with strong communication skills — Aug 2022 – May 2023

Top 5 Finalist, O/E/N India Tech Innovation Award | Problem-solving in sustainable IoT (500+ submissions) — 2023

Top 5 Finisher, Caterpillar Code-a-thon @ VIT | Collaborative team environment (50+ teams) — 2024