

ANAND PABBINEEDI

Software Engineer

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PROFESSIONAL SUMMARY

Full-stack engineer with 3+ years of experience building Node.js, Python, and React systems on AWS. Owned distributed data sync services and production incident response at Voltuswave. Built RAG and multimodal LLM applications using Google Gemini, vector search, and semantic context grounding.

TECHNICAL SKILLS

Backend & APIs: Node.js, Express, Python, RESTful APIs

Frontend: React.js, TypeScript, JavaScript (ES6+), TailwindCSS, HTML5, CSS3

Cloud & DevOps: AWS (Lambda, S3, API Gateway, SQS), Docker, Nginx, GitHub Actions, Git, Netlify, Render

Databases: PostgreSQL, MySQL

AI Integration: RAG Architecture, Google Gemini API, Embeddings, Vector Search (Cosine Similarity), Prompt Engineering

WORK EXPERIENCE

Software Engineer | Voltuswave Technologies India Pvt. Ltd. | Hyderabad **Apr 2026 – Oct 2026**

- Built and deployed a near real-time backend microservice syncing biometric attendance from HikCentral (PostgreSQL) to an internal HRMS (MySQL) for 70+ employees (~15K records/month), fully automating manual attendance entry.
- Guaranteed zero data loss using ack-gated delivery, marking records as synced only on explicit destination confirmation, backed by 3x retry logic and a terminal rejection state for invalid payloads.
- Achieved near real-time ingestion using PostgreSQL LISTEN/NOTIFY triggers, with a 30-minute scheduled fallback sync.
- Designed the ingestion schema with unique constraints to prevent duplicate punches, partial indexes, and keyset pagination so each sync scans only pending rows.

Software Engineer (Contract) | Regal Aurum Group | Dubai (Remote) **Sep 2025 – Nov 2025**

- Built and maintained the official corporate platform, improving page load performance and cross-browser compatibility.
- Integrated responsive UI components with backend APIs to streamline digital client onboarding workflows.

Software Developer (Contract) | EduCheckout – EdTech Platform | London (Remote) **Jun 2025 – Aug 2025**

- Developed production-grade React.js components and an internal admin dashboard, replacing manual spreadsheet-based workflows.
- Designed relational database schemas and implemented role-based access control (RBAC) to secure sensitive platform data.

Software Engineer | Voltuswave Technologies India Pvt. Ltd. | Hyderabad **Mar 2023 – Apr 2025**

- Resolved high-severity production incidents, including PostgreSQL deadlocks, diagnosing root causes and restoring core services.
- Migrated legacy deployments to serverless AWS Lambda infrastructure, simplifying deployments and removing server maintenance overhead.
- Engineered RESTful APIs in Node.js and front-end components in React.js, reducing application load times by 20%.

KEY ENGINEERING PROJECTS

AI-Powered Smart Meal Analyzer | React, Vite, Node.js, Express, Google Gemini API

Live: meal.anandpabbineedi.site | Code: github.com/AnandPabbineedi/smart-meal-analyzer

- Built a multimodal AI web app that estimates calories, macros, and a health score from a meal photo, a description, or both.
- Designed an Express API that sends images to Gemini with enforced JSON output, input validation, and non-food detection.
- Protected the public demo with per-IP rate limiting, a global daily cap, an origin allowlist, and 5 MB upload limits.

AI Knowledge Base Chat Application (RAG) | JavaScript, Node.js, Express, Google Gemini API

Live: rag.anandpabbineedi.site | Code: github.com/AnandPabbineedi/rag-gemini-chatbot

- Built a RAG pipeline from scratch: sentence-aware chunking, Gemini embeddings, and an in-memory vector store ranked by cosine similarity.
- Shows the source passages behind every answer and handles follow-up questions using recent conversation context.
- Cut embedding API calls 50x via batching and vector memory 8x (768-dim Float32), fitting free-tier quotas and a 512 MB server.
- Isolated each visitor's documents per session, with rate limiting and upload validation.

EDUCATION

B.Tech | Jawaharlal Nehru Technological University, Kakinada | GPA: 7.85/10

2022