Ajay Thomas

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Education

Vellore Institute of Technology (VIT) — Vellore, India
B.Tech in Computer Science and Engineering | CGPA: 9.01/10 — *Expected March 2027*

Sacred Heart International School — 2021 – 2023
Class XII, ISC (CISCE): 91.6% | Class X, ICSE (CISCE): 94.3%

Experience

Software Developer Intern — June 2025 – July 2025
Securra Health — *Chennai, India*

- Cut report generation and verification from ∼**1 hour to minutes** for **20K+ records/day** by automating daily, weekly and monthly reports with **SQL Server** queries served through FastAPI.
- Replaced manual reporting for senior management by building **ETL pipelines** (SQL Server → Pandas → OpenPyXL) that produce pivot-based XLSX reports for any custom date range.

Secretary — Jan 2026 – Present
VinnovateIT (Technical Club, VIT) — *Vellore, India*

- Delivered **VinHack 2026**, a 30-hour hackathon for **300+ builders in 120+ teams**, coordinating volunteers and faculty.
- Shipped the Next.js + MongoDB portal for B3 to **200+ participants in 45+ teams**, leading **4 developers**.
- Led digital marketing for MessIT, VIT's hostel mess-menu app with **50K+ downloads**.

Projects

CallOps – Call Campaign Analytics | *Python, PostgreSQL, SQL, Streamlit, LLM APIs* — GitHub

- Estimated from historical campaign data that a **5-redial cap would keep 96% of conversions for 85% of calls**, using SQL funnels and a per-attempt hazard analysis (CTEs, window functions) on **41K real bank clients**.
- Flagged **severe mid-call silences in 20% of calls**, with transcript samples suggesting silent form-filling, by detecting gaps with `LAG()` over **7.9M word-level timestamps** in **8K real call-center transcripts**.
- Caught a false "7× worse" **ASR-failure** result for one call domain by tracing it to a different ASR export format, then measured failure stretches with per-pipeline thresholds and **gaps-and-islands** SQL.
- Audited call outcomes on a 200-call stratified sample with **3 AI models** (Claude, DeepSeek and TypeSafe Jev; κ 0.73–0.79), flagging the **27% where models disagree** for review; blind human labelling in progress.
- Kept 41K bank records and 8K transcripts trustworthy with **32 automated data-quality checks** (schema drift, sentinel values, SHA-256 dedup that caught **204 duplicate transcripts**) and an 8-tab Streamlit dashboard showing every rate with its n and caveat.

Intelletrics – AI Data Analyst | *Python, Pandas, SQL (SQLite), FastAPI, Next.js, LLM APIs* — GitHub | Live

- Enabled plain-English analysis of CSV/Excel datasets **tested on 100K+ rows** by building a **deployed natural-language-to-SQL** platform (grouped aggregates, rankings, time trends, window functions) that runs generated SQL read-only with source-column attribution.
- Kept multi-provider LLM insights reliable with Pydantic validation and **60 pytest tests** in GitHub Actions CI, alongside automatic profiling of missing values, distributions and quartiles.

Freshness-Aware RAG | *Python, Sentence-Transformers, ChromaDB, SQLite, FastAPI* — GitHub

- Kept answers grounded in the latest web scrapes, with historical queries, by versioning chunks with content hashes for incremental embedding (MiniLM, ChromaDB); covered by **50+ pytest tests**.

Brievo AI | *Python, FastAPI, Gemini API, React, Firebase* — GitHub | Live

- Built a Gemini-powered meeting assistant that extracts **structured JSON summaries and action items** from transcripts, with Google Calendar integration through OAuth.

Technical Skills

Languages: Python, SQL, TypeScript, JavaScript, C++, Java
Data Analysis: Pandas, NumPy, funnel analysis, descriptive statistics, data cleaning, ETL, Excel (pivots, OpenPyXL)
AI/ML: LLM APIs (Claude, Gemini, DeepSeek), Claude Code, prompt engineering, LLM evaluation, RAG, NL-to-SQL
Data & Tools: PostgreSQL, SQL Server, SQLite, MongoDB, FastAPI, Streamlit, Git, Docker, GitHub Actions CI, AWS
Data Structures & Algorithms: 118 LeetCode problems (71 Medium, 6 Hard), incl. 11 SQL | LeetCode | NeetCode
Certifications: AWS Certified Cloud Practitioner | IBM Career Education: Cyber Security Analyst