

GAUTHAM VIJAYARAJ

Aldie, Virginia, United States | +16022470511 | gvofficial99@gmail.com

| <https://www.linkedin.com/in/gautham-vijayaraj/> | <https://github.com/gauthiii> | <https://gauthiii.github.io/>

PROFESSIONAL SUMMARY

Analytical and detail-oriented Data Analyst with 3 years of experience delivering business insights, supporting enterprise data initiatives, and managing projects in agile environments. Skilled in SQL, Python, ETL workflows, and visualization tools to transform raw datasets into actionable intelligence. Strong background in stakeholder management, requirements gathering, and project coordination with experience across financial services, healthcare, and education domains. Adept at bridging the gap between technical teams and business users to ensure data-driven decision-making.

FUNCTIONAL SKILLS

Data Analytics (SQL, Python, Tableau, Excel) | Business Intelligence & Reporting | ETL Workflows | Data Cleaning & Transformation | Data Flow Mapping | Data Warehousing | Requirements Gathering & Use Case Mapping | Business Process Optimization | Ad-hoc Business Insights | KPI Dashboards & Visualization | Agile & Scrum Methodology | Project Management & Planning | Strategic Planning | Stakeholder Management | Risk & Change Management | Budgeting & Forecasting | Performance Tracking & Reporting | Client Relationship Management | Insurance & Enterprise Data Systems | Predictive Analytics | Recommendation Systems | Generative AI for Automation & Insights | Large Language Models (LLMs) | Reinforcement Learning from Human Feedback (RLHF) | Retrieval-Augmented Generation (RAG) | Fine-tuning & Model Customization | Generative Agents & AI Workflows

TECHNICAL SKILLS

- **GenAI & ML:** OpenAI API, Gemini API, Hugging Face Transformers, LLM Fine-tuning, CNN, BiLSTM, BLIP
- **AI Agent Systems:** Prompt engineering, RAG pipelines, multi-agent workflows, Streamlit, LangChain
- **Data Analysis & BI:** SQL (Snowflake, Postgres, Oracle, MS SQL), Python (Pandas, NumPy), Tableau, Excel/Spreadsheets
- **Data Management:** ETL workflows, Data Warehousing, Data Cleaning, Data Flow Mapping
- **Business Analysis:** Requirements Gathering, Process Optimization, Stakeholder Management, Ad-hoc Business Reporting
- **Project Management:** Agile Methodologies, Risk & Change Management, Cross-functional Collaboration
- **Other Tools:** Git, JIRA, Confluence, Generative AI for automation & insights

WORK EXPERIENCE

Data Analyst | *Reveille Technologies, Inc., Charlotte, NC* | July 2025 – Present

- Conducted data-driven event analytics to measure engagement and optimize workshop planning.
- Produced dashboards and reports using Excel and Tableau to track student participation and campaign ROI.

Business Data Analyst Intern | *HCLTech, Chennai, India* | May 2024 – August 2024

- Developed data pipelines and dashboards to summarize complex patient case data into actionable insights.
- Worked on ETL and data movement processes to ensure secure integration across healthcare systems.
- Designed reporting workflows to assist in ad hoc queries, insights generation, and performance monitoring.

Data Scientist (Graduate Services Assistant) | *Arizona State University, Tempe, AZ* | September 2023 – December 2023

- Supported research projects by querying datasets and generating insights for faculty-driven prototypes.
- Fine-tuned ML pipelines in Python and conducted exploratory data analysis (EDA) to optimize models.
- Managed cross-team coordination and reporting to ensure timely project deliverables.

Junior Analyst | *Metfolio, London, UK (Remote)* | December 2022 – March 2023

- Analyzed transaction and customer behavior data to provide insights for product development and financial decision-making.
- Built Excel- and SQL-based reports to track KPIs such as user engagement, transaction frequency, and revenue growth.
- Collaborated with product managers in Agile sprints to translate business requirements into data-backed dashboards and reports.
- Supported ETL workflows by cleaning and validating financial datasets, ensuring accuracy and consistency across systems.
- Presented findings to stakeholders, enabling data-driven prioritization of new fintech features and customer retention strategies.

Assistant System Engineer | *Tata Consultancy Services, Chennai, India* | June 2021 – November 2022

- Built financial analytics dashboards integrating SQL databases (Oracle & MS SQL) with React and Spring Boot, enabling faster reporting cycles for stakeholders.

- Designed and implemented ETL workflows to ensure high-quality, consistent data across multiple systems.
- Partnered with business teams to define requirements mapping, delivering insights for anomaly detection, fraud scoring, and forecasting using Python (Pandas, Scikit-learn).
- Improved backend data pipelines for high-throughput queries while complying with regulatory standards.

PUBLICATIONS & CERTIFICATES

Publications:

- Revolutionizing Data Security with Reverse Swap Index Shifting (RSIS) — [IEEE Link](#)
- Is Studio Ghibli Overrated or a Timeless Classic? A Design & Storytelling Analysis — [Article Link](#)
- My Cover Letter as Python Code: How I Mixed Sincerity with Syntax — [Article Link](#)
- Certification: IBM Certified Generative AI Engineering Professional

PROJECTS UNDERTAKEN

Interactive Data Visualization of Formula 1 Safety Evolution [GitHub](#)

- Created an interactive data visualization platform with D3.js and React, visualizing Formula 1 safety evolution from 1950 to 2020.
- Performed data preprocessing and analysis in Python, transforming raw data into structured JSON for seamless web integration.
- Built interactive charts and visualizations to explore accident trends, safety measures, and performance metrics, incorporating advanced data visualization principles.
- Led the full development lifecycle, from data acquisition and feature engineering to cloud deployment, ensuring scalability, responsiveness, and accessibility.

Customer Purchase Prediction (Data Pipeline + ML Model) [GitHub](#)

- Processed 500k+ customer records, built preprocessing pipelines, and applied ANN models for purchase likelihood prediction.
- Achieved ~92% validation accuracy and deployed as a web-based POC tool.

Twitter Sentiment Analysis (EDA + Model Comparison) [GitHub](#)

- Preprocessed 400k tweets, performed tokenization and normalization, and compared models for classification.
- Delivered insights on social media sentiment trends with 98% accuracy using SVM.

Ad-hoc Analysis Projects (Data Visualization Course Projects at ASU) [GitHub](#)

- Converted multiple coursework/homework repositories into data-focused visualizations (scatter plots, box plots, argumentative vis, lollipop charts) using D3.js, Tableau, and Python for insights storytelling

Startup Copilot (Multi-Agent AI System)

- Developed a multi-agent AI platform with 7 specialized agents for real-time startup evaluation, covering key areas such as idea review, risk assessment, and market research.
- Built a Node.js + Express backend for API routing, session management, and agent orchestration, paired with a responsive frontend using Tailwind CSS.

Zoom Lang Buddy (2nd Place – Zoom Campus Spark Challenge 2025) [Demo](#)

- Designed a real-time GenAI companion for translating Zoom speech into American Sign Language (ASL) and multiple spoken languages.
- Utilized RTSM for speech capture and WebSocket for low-latency streaming, ensuring real-time communication.
- Developed an animated, interactive frontend to display ASL signs and translated text, improving accessibility.

Music Recommendation System (Spotify API & Random Forest) [GitHub](#)

- Built a music recommendation engine using 100,000+ tracks from the Spotify API and trained a Random Forest model to predict playlists based on audio features.
- Integrated model predictions into a Flutter UI, enabling users to filter songs by mood or genre and receive personalized playlists with 82% accuracy.

EDUCATION

- Master of Science: Computer Science (Cybersecurity) | Arizona State University, Tempe, AZ | May 2025
- Bachelor of Technology: Computer Science and Engineering | SRM Institute of Science and Technology, India | May 2021