

MEGGNA KARTHIKEYAN

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PROFESSIONAL SUMMARY

Data Engineer and Analyst with **5+ years of experience** transforming **large-scale datasets** into actionable insights that **drive business decisions**. Skilled in **Python, SQL, and Power BI**, with a proven record of improving **reporting efficiency by 90%** and **data accuracy by 87%**. Experienced in building **interactive BI dashboards**, performing **analytical modeling**, and collaborating cross-functionally to deliver **insights** that enable **strategic decisions** for research, enterprise, and executive leadership teams.

SKILLS

Cloud: GCP (BigQuery, GCS, IAM, Composer, Pub/Sub, Cloud Monitoring), AWS (Fargate, ECS, CloudWatch, SNS, EventBridge)

Languages & Tools: Python (pandas, NumPy, scikit-learn, Matplotlib), SQL, Git, GitHub, R, Jupyter Notebook, Microsoft Suite, Power BI

Data Frameworks & Databases: Apache Airflow, Kafka, Tableau, Looker Studio, Alteryx, SQL Server, PostgreSQL, MySQL

Core Competencies: ETL Development, Data Validation, Cloud Orchestration, Pipeline Automation, CI/CD Integration, Data Quality & Testing Frameworks, Data Modeling, KPI Reporting, Statistical Analysis, A/B Testing, Business Requirements Documentation, Agile

Project Management, Cross-functional Collaboration, Product Requirements, Business Process Improvement, Stakeholder Management

Certifications: [Tableau Certified Data Analyst](#), [Google Data Analytics](#), [Alteryx Designer Core](#), [Oracle Analytics Cloud](#), [Power BI Data Analyst](#)

WORK EXPERIENCE

ATC – American Technology Consulting LLC

Remote, IA

Business Data Analyst

Sep 2025 – Present

- Directed **RFP planning and delivery** across multiple teams, securing **4 long-term wins** and improving proposal effectiveness by **38%** through **structured analysis** and **coordinated execution**.
- Consolidated requirements across **5 teams** using standardized workflows, cutting approval timelines by **6 days** and improving alignment.
- Built **pricing and forecast models** from **CRM** and **ERP** data to review **\$3.2M** in contracts and improve **forecast confidence by 44%**.
- Developed **Power BI** dashboards for **12 projects**, improving milestone visibility and increasing **delivery consistency by 25%**.
- Led **UAT cycles** to validate changes, ensuring **100% requirement coverage** and improving **release quality** across key deliverables.

University of Massachusetts Dartmouth

Dartmouth, MA

Data Analyst & Graduate Research Assistant

May 2024 – Jul 2025

- Designed and automated **Python-based data pipelines** to ingest, clean, and preprocess **1.5M+ Gravitational Wave (GW) event records** from **APIs and archives**, improving **data accessibility and analysis speed by 45%**.
- Built **Power BI** and **Tableau** dashboards with intuitive layouts to visualize key insights, **enhancing analytical accuracy by 30%**.
- Developed **statistical models** to detect missed **GW events**, achieving **87% precision** and improving **validation reliability**.
- Defined and tracked **KPIs** such as **accuracy** and **match rates**, increasing **system efficiency** and reducing **validation time by 25%**.
- Automated **metadata management, logging, and version control** to improve **data reproducibility**, cutting **manual rework by 50%**.

Cognizant (Client – Bayer)

Chennai, India

Data Engineer

Feb 2021 – Jun 2023

- Designed **ELT/ETL pipelines** for **three Bayer Enterprise Data Fair modules**, enabling **real-time insights** and **unified reporting**.
- Migrated legacy **SQL Server datasets** into **BigQuery**, ensuring secure transition and improving **data accessibility** and **query agility**.
- Implemented **Row Level Security** across **100+ GCP environments**, reducing access issues by **99%** and strengthening **governance**.
- Automated **Kafka consumers** on **AWS Fargate** using **EventBridge**, accelerating **CI/CD** workflows and boosting **throughput by 65%**.
- Streamlined **Tableau reporting** by converting **pivot logic** into **BigQuery SQL**, reducing update time from **hours to under 5 minutes**.
- Built **file-triggered workflows** to launch **Airflow DAGs** via **Python** on **GCS** file updates, reducing **report turnaround time by 90%**.
- Deployed **Pub/Sub-based SLA monitoring** to improve **pipeline observability**, enabling proactive **alerting** and minimizing downtime.
- Engineered **modular validation frameworks** using **Python and SQL**, achieving **95% accuracy** and full **QA compliance**.
- Optimized **BigQuery query performance** via **tuning and partitioning**, improving **distributed processing efficiency by 30%**.
- Led **post-go-live support and cross-functional change requests**, ensuring **100% SLA adherence** across AEMEA data layers.

INTERNSHIP

Excelerate (Saint Louis University Collaboration)

Remote, United States

Data Analyst Associate Intern

Aug 2025 – Sep 2025

- Led a **15+ member data analyst team** through the **full data visualization lifecycle** from raw data integration to stakeholder-ready dashboards, earning **Star Performer recognition** for leadership and execution.
- Consolidated **six disparate datasets** into a **unified master table** by resolving **schema mismatches and nulls**, enabling **accurate learner and cohort-level analytics** across demographics and engagement patterns.
- Delivered **data-driven insights** including **41% missing onboarding fields, 30% higher STEM conversion rates**, and **regional dropout trends**, informing **learner form design, outreach strategy**, and **content localization**.
- Built an **interactive Looker Studio dashboard** with advanced filters and pre-aggregations, improving **load time by 40%** and enabling **real-time decision-making** for program leads and campaign strategists.

AWARDS AND RECOGNITIONS

Star Performer – Excelerate (Saint Louis University Collaboration)

Honored for **leading a 15+ member** data analyst team and delivering dashboards that **improved reporting efficiency by 40%**.

Cognizant Cheers Award – Strategic Execution (Bayer – Crop Science Division)

Recognized for leading engineering and cross-functional teams to **implement Row Level Security (RLS)** across **100+ environments** in **GCP BigQuery**, achieving a **99% reduction in access issues** and strengthening **data governance** across Bayer's pipelines.

EDUCATION

University of Massachusetts Dartmouth

Dartmouth, MA

Master of Science in Data Science (GPA – 3.87)

Sep 2023 – Aug 2025

Relevant Coursework: Data Warehousing & Mining, Cloud Computing & Scalable Data Systems, Business Intelligence & Data Visualization, Database Systems & Query Optimization, Data Management & Governance, Optimized Data Processing & Analysis