

KARTHIK RAVI

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[LinkedIn](#) | [Portfolio](#) | [GitHub](#)

PROFESSIONAL SUMMARY

M.Sc. Computer Science Student (Graduating 2026) with 2+ years of professional experience in Data Analytics and Process Automation. Expert in ensuring data consistency and reliability, having managed large-scale datasets (100k+ daily records) at Cognizant. Currently applying advanced data quality techniques and Anomaly Detection at Volvo Cars. I combine strong SQL/Python skills with a passion for transforming raw, messy data into clean, actionable business insights using dashboards (Power BI/Tableau).

TECHNICAL SKILLS

Data Analytics: SQL, Data Cleansing & Validation, ETL Pipelines, Pandas/NumPy, Excel.

Visualization: Power BI, Tableau, Dashboarding, KPI Tracking.

AI & Data Science: Predictive Modeling, Anomaly Detection, GenAI for Data Processing, Scikit-learn.

Languages: English (Professional), Swedish (Basic).

PROJECTS

AI Team Lead: Situational Awareness Security System | Industry Collaboration with Axis Communications, Linköping

- Led the end-to-end creation of an AI Agent to assist security operators, handling the full stack from data ingestion (metadata) to the final chat interface.
- Engineered automated workflows that reduced manual effort by summarizing complex logs, directly transforming raw data into actionable business insights.
- Rapidly prototyped the solution using Python and Ollama, demonstrating the drive to build functional "building blocks" from scratch.
- Achieved 'Best Project' Award for the innovative implementation of multi-camera tracking and privacy-preserving Local AI, validating the scalability and impact of the system.

Academic Project: FastTalk (Low-Latency Speech-to-Speech)

- Building a high-performance speech-to-speech pipeline (STT ->LLM ->TTS) for real-time interaction.
- Currently leading the development of the Text-to-Speech (TTS) module, integrating and evaluating open-source tools like Orpheus, Piper, and Kokoro for optimal latency and quality.

InsightCV – AI Resume Reviewer (Personal Project)

- Developed a 100% private, offline-first AI resume reviewer using LLaMA 3.2 and Streamlit.
- Engineered the application to run entirely locally, ensuring no user data leaves the machine.
- A "self-directed" agent that parses documents and validates them against rules, automating a traditionally manual review process.

PROFESSIONAL EXPERIENCE

Master Thesis Researcher (AI & Software-Defined Vehicles)

Volvo Cars, Gothenburg, Sweden | Jan 2026 – Present

- Developing an AI-powered fault analysis system for the Central Compute Unit of Software-Defined Vehicles (SDV) to automate root cause identification for 200+ complex fault reports per quarter.
- Engineering a Hybrid AI pipeline that correlates gigabytes of heterogeneous data (DLT logs, network traffic, core dumps) using Anomaly Detection for signal filtering and LLMs for semantic reasoning.
- Designing adaptive models to handle data drift in rapidly evolving software platforms, aiming to reduce manual diagnosis time from days to minutes.

Full Stack Developer Intern

Trustyou Family AB, Stockholm, Sweden | Aug 2025 – Present

- Developed core features for TrustYou, a mobile app designed to help families build healthy digital habits and analyze screen-time behavior in a privacy-preserving way.
- Implemented data collection pipelines that track app usage, digital well-being patterns, and engagement insights, without invasive monitoring.
- Focused on ethical AI and user transparency, aligning with modern principles of trust-based digital interaction.
- Implementing secure data handling practices compliant with GDPR.

Programmer Analyst

Cognizant Technology Solutions, Coimbatore, India | *Oct 2022 – Jun 2024*

- Engineered backend APIs for large-scale logistics systems, processing 100,000+ daily records. Optimized query performance to reduce latency by 30%.
- Designed and deployed automated validation scripts that eliminated repetitive data entry and saving operations teams hundreds of manual hours.
- Maintained production system stability, participating in code reviews, and contributing to technical documentation to ensure long-term maintainability.
- Collaborated with non-technical stakeholders to translate ambiguous business requirements into technical specifications.

EDUCATION

M.Sc. in Computer Science | Linköping University, Sweden | *2024 – 2026 (Expected)*

B. Tech in Computer Science | Karunya University, India | *2018 – 2022*