



# DILSHAN PERERA

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Keeranthidiya, Nouttuduwa,

Matugama

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

## PROFESSIONAL SUMMARY

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Versatile Data Professional with experience spanning database engineering, data analysis, and machine learning. Expertise in data migration, automation, and optimizing workflows using tools like Python, Apache Airflow, and ETL processes. Proficient in working with databases such as MySQL, PostgreSQL, and AWS Redshift. Known for strong analytical and problem-solving skills, with a passion for leveraging data to drive business insights and improve operational efficiency.

## SKILLS

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- **Data Science & Machine Learning:** Kafka, Batch Processing, ML Models, Predictive Analytics
- **ETL & Data Engineering:** ETL Pipelines, Airflow, AWS Glue, AWS Redshift, Data Integration, Data Transformation, Data Cleansing, Automation
- **Generative AI & NLP:** LangChain, GenAI, Hugging Face, OpenAI LLMs, NLP
- **Database Management:** MySQL, MS SQL, PostgreSQL, Firebase, Data Warehousing, Database sharding
- **Data Visualization:** Power BI, Looker, Excel, Data Reporting, Data Storytelling

## WORK EXPERIENCE

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- ❖ **Associate Database Engineer, Apple Holidays (Pvt) Ltd, Colombo, 02** [ July 2024 – Present ]
- Migrated data across multiple databases using Kafka.
  - Automated multi-server database backups using Apache Airflow.
  - Developed Python scripts for cross-server data transfers.
  - Cleaned and processed bulk data via Python and API integrations.
  - Developed an ML-based product recommendation system to enhance personalization, incorporating image recognition and voice search for better user experience.
  - Managed live production databases on the data side, ensuring smooth and secure operations.
  - Passionate about open-source AI models and staying current with the latest AI research.

[Technologies worked with: ML Models, My SQL, Airflow, Python scripting, Kafka, GenAI]

- ❖ **Associate Data Analyst, Apple Holidays (Pvt) Ltd, Colombo 02** [ February 2024 – July 2024 ]
- Bulk data uploads and exports to live databases using Python scripts.
  - Cleaned and processed bulk data via Python and API integrations.
  - Generated and processed large volumes of inventory data through Python automation.
  - Developed Power BI dashboards for department-wise reporting and performance tracking.
  - Product Experience with Product Data Analysis and Optimization

[Technologies worked with: My SQL, Power BI, Excel, Python]

- ❖ **Trainee Data Analyst, Pristine Solution (Pvt) Ltd, Colombo, 05** [ December 2022 – August 2023 ]
- Developed Power BI dashboards and a BI mobile app for GlobalMed Company (Pvt) Ltd, Prime Lands (Pvt) Ltd, and Cantec Printing & Packaging (Pvt) Ltd.

[Technologies worked with: Power BI, MS SQL, Data Modeling, SAP HANA, Crystal Reports, Python]

## PROJECT EXPERIENCE

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### ❖ Final Year Research Project

#### **AquaPulse: A Smart Surveillance System for the Ornamental Fish Industry**

**Description:** Developed a smart surveillance system aimed at the ornamental fish industry. Implemented models for identifying and classifying fish behaviours and oviparity fish identification.

**Key Features:**

- Fish movement and species identification using image processing.
- Behaviour classification using machine-learning algorithms.
- Mobile application providing real-time alerts and reminders for tank maintenance.

**[Technologies Used: YOLO, Python, Machine Learning, Mobile Development (Android), IoT]**

### ❖ Conversational RAG Chatbot for Personalized Information Retrieval [[GitHub Link](#)]

**Description:** Developed a Conversational Retrieval-Augmented Generation (RAG) Chatbot using LangChain and OpenAI's LLMs to enhance document-based information retrieval. This intelligent chatbot extracts insights from uploaded documents and delivers context-aware, personalized responses.

**[Technologies Used: LangChain, Vector Database (ChromaDB), OpenAI]**

### ❖ Data Mining Project: Laptop Price Prediction Project [[GitHub link](#)]

Developed a Machine Learning Model to get laptop price prediction

Web application implementation for the developed model

**[Technologies Used: Python, Heroku]**

### ❖ Data Warehousing Project on AWS Redshift [[Linkedin](#)]

Designed and implemented a star schema-based data warehouse on AWS Redshift, loading structured data from Amazon S3, creating tables for analysis, and configuring IAM roles for secure data access.

**[Technologies Used: AWS Redshift, Amazon S3]**

## EDUCATION

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**B.Sc. (Hons.) in Information Technology, specializing in Data Science**

**2020-2024**

Sri Lanka Institute of Information Technology (SLIIT)

## REFEREES

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