

CHAMEERA DE SILVA

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PROFESSIONAL BACKGROUND

Experienced **Cloud Data Engineer** with 4+ years of expertise in Python, Cloud Development ([AWS](#)), and ETL pipelines, combined with proven leadership in managing large-scale projects and agile teams. Adept at scalable micro services design, data-driven decision-making, and driving projects from conception to delivery with a strong focus on innovation and collaboration.

- Led cross-functional teams using **Scrum** and **Kanban** methodologies, ensuring on-time project delivery while fostering collaboration across developers, analysts, and stakeholders.
- Designed and optimized **ETL pipelines** for large-scale data ingestion and transformation, enabling seamless data flow for analytics and reporting.
- Advanced proficiency in **reverse-engineering** systems, improving performance, and scaling architectures to meet business requirements.
- Skilled in managing databases (PostgreSQL) and implementing **CI/CD pipelines** to automate workflows.

During a career break for health recovery, deepened technical expertise in Apache Spark, DBT, and modern data engineering tools, while developing innovative projects. Known for proactive leadership, technical problem-solving, and delivering data-driven solutions that align with business goals.

SKILLS

- **Core:** Python, SQL, AWS(Glue,S3), Pandas, Spark
 - **Databases:** PostgreSQL, CitusDB, Snowflake
 - **Cloud Platforms:** AWS, Azure (Blob), GCP (Big Query)
 - **Big Data** – Talend, SSIS, Snowflake, NiFi
 - **Infrastructure as Code:** Terraform
 - **Frameworks:** FastAPI, Django, React-Native
- **DevOps Tools:** GitHub Actions, Cloudflare
 - **Containerization:** Docker
 - **Databases:** Mongo DB, PostgreSQL, MS SQL
 - **Orchestration Tools:** Dagster
 - **Data Visualization:** Tableau, Kibana, Google Analytics, PowerBI, Grafana

WORK EXPERIENCE

10/2024 – Present

Cloud Data Engineer, Open Ceylon (6 months)

Domains: AgriTech, IoT
Tools & Technologies: FastAPI, PostgreSQL, SQLAlchemy, Alembic, asyncpg, Docker, Pydantic, React-Native, Expo, Pinecone, LLM, LangChain
Project: Harvest Hive - An AgriTech Platform, Mobile App, Chatbot

- Engineered robust backend for Harvest Hive using FastAPI, encompassing real-time sensor data ingestion, scalable data pipelines and integrate backend with the React Native application.
- Designed and deployed a Lang-Chain based Chatbot, integrating vector databases for enhanced information retrieval and knowledge management

08/2023 – 09/2024

Career Break (1 year 2 month)

- Took a career break to focus on **health and recovery** from an accident
- Achieved **AWS Solutions Architect Associate** certification and gained expertise in Data Engineering tools and concepts, including Apache Spark, Snowflake, DBT and Databricks.
- Managed and contributed to agri-tourism and tea estate digitization (**ERPNext**) and to healthcare analytics via an [open-source](#) project

03/2022 – 07/2023

Data Engineer, HRC LABs (1 year 4 months)

Projects: ETL and Data Warehousing, Revenue Cycle Management portal (PaaS), Data Migration
Domains: US Healthcare, Revenue Cycle Management, Big Data
Tools & Technologies: AWS services such as S3, ECR, Athena, Glue and Cloud Watch, Python, Jira, Docker, Tableau, PowerBI, MSSQL, PostgreSQL, Pandas, Fast API, PySpark, SSIS, Talend, Citus, NiFi

- Served as a lead developer, managing multiple projects in the **US healthcare** domain, ensuring timely delivery and adherence to compliance standards.
- Collaborated with cross-functional teams and stakeholders to deliver micro service based **REST APIs**, improving workflow efficiency by 10% and enhancing **KPI visibility** for RCM agents.
- Reverse-engineered critical legacy systems, introducing modern architectural changes with new technologies, which reduced maintenance overhead and boosted system reliability.
- Designed and implemented a HIPAA-compliant **PaaS** solution for the **RCM industry**, integrating advanced security and scalability features tailored to healthcare regulations.
- Transformed legacy **SSIS** ETL jobs into robust **NiFi** workflows with **Citus** databases, improving data routing speed and reliability for high-volume datasets.
- Deployed scalable ETL pipelines using Python (**Pandas**), **AWS Glue** (PySpark), and Talend, ensuring data accuracy and reducing reporting latency for decision-makers.
- Optimized core business SQL scripts, resulting in 8% faster query execution (minimum hardware) and streamlined operations with advanced error handling and logging mechanisms.

07/2020 – 02/2022

Data Engineer, ILabs (1 year 8 months)

Products: jobeka.lk, Quilt Dive, Sphere ETL

Domains: AI&ML, E-commerce

Tools and technologies: Mongo DB, Django, Flask, Python, RabbitMQ, Elastic Search, Google Vision, Pandas, Google Big Query, Google Cloud Functions, Tensor flow, Selenium, Docker, Tableau

- Developed advanced **web scrapers** to gather data from social media platforms, effectively bypassing bot detection on Instagram, Facebook, and Snapchat. Integrated data APIs and automated workflows using Flask REST APIs for Reddit and Twitter, optimizing data ingestion and processing.
- Created Tableau **dashboards, storied** synthesizing Google Analytics and Growth Analytics (server side), empowering stakeholders to track KPIs and prioritize product updates that secured jobeka.lk position as **Sri Lanka's #2** (2021) job platform.
- Developed and trained machine learning models to analyze unstructured resume data using advanced techniques like YOLO (object detection with OpenCV) and Named Entity Recognition (NER) models using SpaCy. Implemented workflows to streamline the management and utilization of these models for internal CV analysis tool.

09/2019 – 01/2020

Data Analyst, Intrepid Group, Colombo (4 months)

Products: Azure D365 data migration

Domains: Ecommerce, tourism

- Data validation and reconciliation between legacy and target systems

09/2017 – 09/2018

Application Support Engineer, Amana Bank, Colombo (1 year)

Products: iMal core banking system, CDM

Domains: Banking

2015 - 2019

EDUCATION

BSc (Hons) Business Information Systems, University of Westminster, UK
(Final year project – Insightful data analysis solution for the financial industry)

CERTIFICATE

AWS Certified Solutions Architect Associate – 2024 - [AWS Badge](#)
Data Engineering with Google Cloud Professional Certificate (Cousera)
Certificate of completion - [Dagster Essentials](#) – 2024 (Dagster University)

ACHIEVEMENTS

Gold medalist (Rugby) in 12th UiTM Sports Fiesta 2017, Malaysia.
Champions - Mercantile knockout football tournament – 2018.
Best Actor award - Open Drama Contest 2011, Kaduwela Division.