Ahasna Siyambalapitiya

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🌐 ahasna03.github.io/ash$_portfolio$ in linkedin.com/in/ahasna-siyambalapitiya2003

PROFILE

A highly motivated final-year BSc student in Applied Data Science and Communication with expertise in data analysis, machine learning, and data visualization using Python, SQL, Power BI, and Microsoft Azure. Skilled in transforming complex data into actionable insights through data storytelling, business intelligence, and cloud-based data solutions. Proficient in SQL Server, Power BI Report Builder, and automation with Power Platform, with a strong ability to communicate data-driven insights effectively. Seeking opportunities to apply analytical and technical skills in solving real-world problems.

EDUCATION

BSc in Applied Data Science Communication   Ratmalana
General Sir John Kotelawala Defence University   *Jan 2023 - Present*

Diploma in Business Management   Colombo 04
ESOFT Metro Campus   *2018*

Advanced Level in Commerce Stream with Statistics   Colombo 07
Musaeus College   *2007 - 2022*

EXPERIENCE

Daraz HQ   Colombo 08
Commercial Intern   *Nov 2022 - Jan 2023*
- Managed Master File creation and data processing using Excel.
- Handled communication between internal teams for operational efficiency.

EXTRACURRICULAR ACTIVITIES

AI and Data Science Club of KDU   Ratmalana
Co-Event Organizer   *June 2024 - Jan 2025*

IEEE Student Branch of KDU   Ratmalana
Secretary Team   *June 2024 - Jan 2025*

SKILLS AND TOOLS

- **Programming Languages** - Python, SQL, R, HTML
- **Data Science and Machine Learning** - Scikit-learn, TensorFlow, Pandas, Excel
- **Cloud Platform** - Microsoft Azure
- **Data Visualization** - Power BI, Power BI Report Builder, Power Apps

ACADEMIC RESEARCH

- **Crime Hotspot Prediction Using Machine Learning for Proactive Policing at LSOA Level**
  Siyambalapitiya, A., Yasara, K., Damruwan, U., Bandara, K., & Marasinghe, T. (2025).
  General Sir John Kotelawala Defence University

PROJECTS

- **PoliGEN Document Summarizer and Policy Generator Web App**
  - *Tools Used*: Flask, Gemini AI, Python, HTML, CSS, JavaScript
  - *Methods Used:* NLP, Text Summarization, Web Development
  - *Description*: Developed a Flask web app with Gemini AI to automatically summarize policy documents, enhancing analysis efficiency through text preprocessing and generative AI.

- **Child Well-Being Analysis Using Young Lives Data**
  - *Tools Used*: Power BI, SQL Server, Report Builder
  - *Methods Used*: Data Cleaning, Statistical Analysis, Data Visualization
  - *Description*: Analyzed child poverty in Ethiopia and India using Young Lives data, focusing on health, education, economic, and environmental factors, with SQL Server and Power BI dashboards to support policymakers.

- **Greater Manchester Domestic Energy Performance Analyzer**
  - *Tools Used*: Microsoft Azure, Power BI, SQL Server
  - *Methods Used*: Data Cleaning and Transformation (Azure SQL), Energy Efficiency Trend Analysis, Visualization in Power BI
  - *Description*: Analyzed energy efficiency trends in Greater Manchester (2008-2024) using EPC data, identifying key trends for policymakers, homeowners, and real estate developers.

- **Interactive Analysis of Modern Olympic Games (1948-2016) using Power BI Report Builder**
  - *Tools Used*: Power BI Report Builder, SQL, Data Analytics
  - *Methods Used*: Data Aggregation, Trend Analysis, Interactive Filtering
  - *Description*: Analyzed Olympic participation and medal performance (1948-2016), focusing on post-WWII revival, and political influences, with recommendations for sustainability and inclusivity.

- **Heart Disease Prediction Using K-Nearest Neighbors (KNN)**
  - *Tools Used*: R, Tidyverse, Caret, ggplot2
  - *Methods Used:* Data Preprocessing, Standardization, K-Nearest Neighbors (KNN), Confusion Matrix
  - *Description*: Developed a KNN model for heart disease prediction, achieving 61.73% accuracy, 68.89% sensitivity, and 52.78% specificity, with recommendations for using advanced models like Random Forest.

- **Comprehensive Power BI Dashboard on the Modern Summer Olympics (2000-2016)**
  - *Tools Used*: Power BI, SQL, Data Analytics
  - *Methods Used*: Data Cleaning, Trend Analysis, Visualization
  - *Description*: Developed a Power BI dashboard analyzing Olympic data (2000-2016), highlighting trends in participation, medals, gender representation, and U.S. dominance.

- **Association Rules Mining on Market Basket Dataset**
  - *Tools Used*: R, Power BI
  - *Methods Used*: Association Rules Mining, Data Preprocessing, Visualization
  - *Description*: Applied Association Rules Mining on a Market Basket dataset using the apriori() algorithm, visualizing insights into customer purchasing behavior in a Power BI dashboard.

REFERENCES

- **Dr. Charith Silva**
  Visiting Lecturer, Edge Hill University
  ✉ charith.silva@edgehill.ac.uk
  ☎ +44 7920 206338

- **Ms. BCT Wickramasinghe**
  Lecturer, General Sir John Kotelawala Defence University
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