

# Certificate of Course Completion

*Gwiba Mabandla*

*has successfully achieved student level credential for completing the Data Science Essentials with Python course.*

*The student was able to proficiently:*

- *Import Python libraries and read CSV data into DataFrames.*
- *Perform the core moves with DataFrames including eval(), query(), and groupby().*
- *Perform left merges to combine DataFrames.*
- *Clean data including selecting columns, dealing with missing values, and converting datatypes.*
- *Generate plots and charts from DataFrames using Matplotlib.*
- *Apply best practices for producing compelling and readable bar charts, scatter plots and line plots.*
- *Understand the basics of fitting a linear model to paired data points and making sense of the goodness of fit.*
- *Form and test hypotheses with explanatory mechanisms.*



Scan to Verify

*Lynn Bloomer*

Lynn Bloomer  
Director, Cisco Networking Academy