

GENAI AND ML IN SNOWFLAKE SQL

Fundamentals

We are not affiliated or endorsed by Snowflake, Inc.

Description

Embark on a transformational journey into the world of AI and ML Snowflake features with our comprehensive training program. Designed for anyone with a basic understanding of SQL, this course is designed to enhance your knowledge and equip you with the skills to use Snowflake's cutting-edge AI and ML features.

Engage in hands-on exercises and real-world scenarios to gain the skills necessary to effectively use Snowflake AI and ML in your organization. Whether you're analyzing data, programming, or managing in IT, after this workshop you'll increase your perception of the possibilities that AI & ML provide, combined with the easy access to data that Snowflake provides.

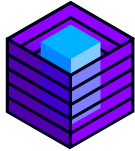
By the end of this program, you'll be well-versed in AI and ML functions, ready to tackle real-world data challenges with confidence and skill. Join us and transform your understanding of data analytics and machine learning with Snowflake.

Format

Workshop

Duration

3 days



Prerequisites

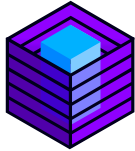
- SQL knowledge
- Snowflake fundamentals
- Familiarity with data analytics
- Interest in AI and ML

Target audience

The target group for the training is people who have at least basic knowledge of SQL and want to expand their knowledge of AI and ML Snowflake capabilities. The training is suitable for data engineers, data analysts and IT professionals who want to apply Snowflake's advanced AI and ML features to their work, but also for IT managers or business users who want to learn about the cutting-edge AI/ML tools available in Snowflake. It is recommended for those who want to stay at the forefront of technological advances in data processing and analytics.

Workshop program

1. Basics of AI, Generative AI and Machine Learnings
 - AI
 - GenAI, LLM's, Embeddings, Prompts
 - Machine Learning
2. Snowflake AI Features
 - Snowflake Cortex LLM Functions
 - Snowflake ML Functions
 - Snowflake Copilot
 - DocumentAI
 - Snowflake AI & ML Studio



3. Snowflake Cortex LLM Functions

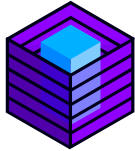
- Range of problems that can be resolved using LLM's (sentiment, summarization, translation, question answering)
- Embeddings and VECTOR datatype
- Semantic similarity
- Basic RAG pipeline overview
- Available LLMs (arctic, mixtral, llama)
- Model choosing
- Costs of serverless LLM functions
- Tips on prompting, templates

4. Snowflake ML Functions

- Range of problems that can be resolved using ML functions (time-series, forecasting, anomaly detection, root cause analysis, classification)
- Forecasting
- Anomaly detection
- Classification
- Contribution Explorer

5. Co-pilot

- SQL explanation
- SQL generation
- Data exploration



Acquired skills

After the training, you will have a comprehensive knowledge of the AI and ML mechanisms available in Snowflake SQL. You will understand the basic concepts of AI, GenAI and ML, and learn tools for solving tasks related to text processing or time series analysis. Among other things, you will learn how to get answers from document scans (e.g., invoices), handle question answering for your own documents (e.g., for a large corporate knowledge base), and learn how to detect anomalies and predict future values, such as sales. Using co-pilot, you will be able to generate SQL queries based on natural language and analyze complex SQL queries and discover data. Knowledge from the training will enrich your data analysis skills with advanced but easy-to-use artificial intelligence mechanisms. Data engineers will learn how to enrich data pipelines with AI/ML processing, and business users will learn basic AI and ML concepts and tools available in Snowflake.