IVAN
REZNIKOV

THE GENERATIVE AI
WITH LANGCHAIN

ONLINE LIVE STREAMING

JUNE 4-5, 2024
DUE TO TIME ZONES, THIS CLASS WILL TAKE PLACE IN 2 AFTERNOONS
FROM 2 PM TO 6 PM ITALIAN TIME

ABOUT THIS SEMINAR

This is a comprehensive course that explores LangChain, an open-source framework for building applications using Large Language Models (LLMs).

LangChain offers a unique blend of tools and abstractions that enhance the customization, accuracy, and relevancy of responses generated by applications powered language models.

This framework enables the development of Chatbots, content generation systems, summarizers, and more.

By attending this seminar, participants will gain an in-depth understanding of how LangChain streamlines the development of data-responsive applications, making integrating LLMs with internal data sources and performing Prompt Engineering more efficient and effective.

What you will learn

Participants will explore the various components and functionalities of LangChain, including:

- **Model Interaction**: Learn how LangChain interacts with Cloud and local language model
- **Indices, Data Connections, and Retrievals**: Understand how data can be transformed, stored, and retrieved through queries within LangChain
- **Chains**: Gain insights into the fundamental principle of chains in LangChain, which involves linking multiple LLMs and components to provide context-aware responses
- **Agents**: Discover how agents in LangChain orchestrate complex commands to solve problems and decide the best actions to take in response to specific requests
- **Memory Modules**: Learn about integrating short-term and long-term memory in language models, enhancing their interaction context
- **Prompt Engineering**: Acquire skills in designing and executing Prompts to increase the likelihood of receiving well-written and accurate responses from language models
- **Application Development**: Understand the process of defining, building, customizing, and fine-tuning applications powered by language models within LangChain

Who should attend this course

This seminar is ideal for:

- **Developers and Software Engineers**: Those looking to build and customize applications using language models
- **Data Scientists and Machine Learning Engineers**: Professionals interested in integrating LLMs with data sources and refining Prompts for more accurate responses
- **Product Managers and Technical Leads**: Individuals overseeing teams and projects incorporating AI and language model technologies
- **AI and Technology Enthusiasts**: Anyone interested in the latest developments in AI, language models, and their practical applications

By the end of this seminar, participants will thoroughly understand how to leverage LangChain to develop sophisticated, context-aware applications using large language models. This knowledge will be crucial for anyone looking to stay at the forefront of AI and language model technology advancements.

OUTLINE

1.Introduction to LangChain

- Overview of LangChain as an open-source framework.
- Understanding the integration of LangChain with Large Language Models (LLMs)

2.Key Features of LangChain

- **Management of LLMs and Prompts**: Techniques to optimize and manage Prompts
- **Chains**: Understanding sequences of calls to LLMs and other utilities
- **Data Augmented Generation**: Integrating external data sources with LangChain
- **Agents**: Creating agents that allow LLMs to make and act upon decisions
- **Memory**: Implementing memory to maintain the state between calls
- **Evaluation**: Approaches to assess models using LLMs themselves

3.Use Cases for LangChain

- **Question-Answering Applications**: Developing apps to answer specific document-based questions
- **Building Chatbots**: Leveraging LangChain for creating responsive Chatbots
- **Interactive Agents**: Constructing agents for customer service and data collection
- **Data Summarization**: Utilizing LangChain to summarize lengthy text
- **Document Retrieval and Clustering**: Implementing text embedding models for document-related tasks
- **Interacting with APIs**: Integrating LangChain with various APIs for diverse applications

4.LangChain's Limitations

- Understanding the challenges and limitations of using LangChain

5.Building Applications with LangChain

- Installation and environment setup
- Understanding LangChain's components and chain
- Using Prompt templates for dynamic and adaptable Prompts
- Employing VectorStores and Indexes for information storage and retrieval
- Implementing output parsers and example selectors for tailored AI responses
- Exploring the functionalities of agents in LangChain
- Practical steps to build a language model application in LangChain

6.Advanced Concepts and Practical Implementation

- Combining LLMs and Prompts in multi-step workflows
- Creating complex applications using LangChain's modular approach

INFORMATION

PARTICIPATION FEE

€ 850

The fee includes all seminar documentation.

SEMINAR TIMETABLE

2.00 pm - 6.00 pm (Italian time)

HOW TO REGISTER

You must send the registration form with the receipt of the payment to:
info@technologytransfer.it

TECHNOLOGY TRANSFER S.r.l.
Piazza Cavour, 3 - 00193 Rome (Italy)

PAYMENT

Wire transfer to:
Technology Transfer S.r.l.
Banca: Cariparma
Agenzia 1 di Roma
IBAN Code:
IT 03 W 06230 03202 000057031348
BIC/SWIFT: CRPPIT2P546

GENERAL CONDITIONS

DISCOUNT

The participants who will register 30 days before the seminar are entitled to a 5% discount.

If a company registers 5 participants to the same seminar, it will pay only for 4.

Those who benefit of this discount are not entitled to other discounts for the same seminar.

CANCELLATION POLICY

A full refund is given for any cancellation received more than 15 days before the seminar starts. Cancellations less than 15 days prior the event are liable for 50% of the fee. Cancellations less than one week prior to the event date will be liable for the full fee.

CANCELLATION LIABILITY

In the case of cancellation of an event for any reason, Technology Transfer's liability is limited to the return of the registration fee only.

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THE GENERATIVE AI WITH LANGCHAIN

June 4-5, 2024

Registration fee:
€ 850

If registered participants are unable to attend, or in case of cancellation of the seminar, the general conditions mentioned before are applicable.

first name ....

surname ....

job title ....

organisation ....

address ....

postcode ....

city ....

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Stamp and Signature

Send your registration form
with the receipt of the payment to:
Technology Transfer S.r.l.
Piazza Cavour, 3 - 00193 Rome (Italy)
Tel. +39-06-6832227 - Fax +39-06-6871102
info@technologytransfer.it
www.technologytransfer.it

Speaker

Ivan Reznikov is principal Data Scientist at QBurst, brings over a decade (12 years) of proficiency in Python and Data Science. He is currently dedicating his expertise to authoring LangChain for Life Sciences, a book set to be published by O'Reilly. His accolades include being recognized as a Kaggle Competition Expert and teaching university in Master Data Science courses. Ivan has spoken on TEDx, GITEX and PyCON MEA.