

Data Science for Professional with Large Language Models(LLM)

Your Comprehensive Syllabus



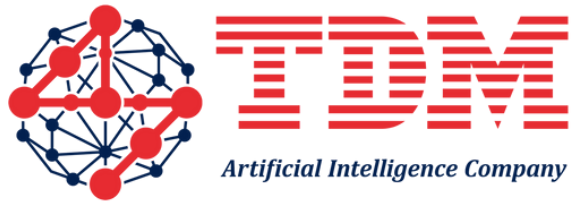
TDM

Artificial Intelligence Company

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Artificial intelligence (AI) could contribute a staggering \$15.7 trillion to the global economy by 2030


PwC (PricewaterhouseCoopers)


“Generative AI has become a force for innovation, competitiveness, and positive change in the business world.”

Arshad Khan

Founder / Chief AI Product Design & Innovation

1. About the Course

 05 Days

 In Person

Overview

This course, presented in a dynamic, executive-style format, is tailored to optimize your engagement with expert instructors and fellow learners. It focuses on fostering critical and systematic thinking regarding the role of Data Science and LLM in the business realm, highlighting both its potential value and associated risks. The curriculum is designed to equip you with the skills needed to initiate, manage, and expand transformative Data Science and LLM projects within your organization. The course content offers a comprehensive understanding of this cutting-edge technology, integrating it with practical business scenarios. It covers four key sectors where Data Science has shown exceptional promise: enhancing and personalizing customer service, optimizing supply chain operations, revolutionizing marketing and sales strategies, and providing robust engineering support.



2. Why Take This Course?

Tailored for professionals and entrepreneurs eager to harness the power of Data Science and LLM, this course aims to enhance productivity, streamline business processes, spark creativity, propel growth, maximize investments, and boost customer satisfaction. It's an ideal learning opportunity for C-suite executives, leaders in technology and innovation, senior managers, and seasoned practitioners from various sectors. Participants will gain a comprehensive insight into the exciting realm of AI, exploring its potential to generate and capture value in a myriad of business applications.



3. Program Highlights

- Live Hands-On Project and AI Implementation Workshop, Training
- **Comprehensive AI Focus:** 5-day in-person course covering Data Science, Machine Learning, and LLM with practical business applications.
- **Industry-Relevant Curriculum:** Emphasizes critical thinking in AI for customer service, marketing, sales, and engineering in Prop-tech, Ed-tech and Healthcare.
- **Interactive and Advanced Learning:** Hands-on sessions with Google Colab, specializing in ML, NLP, Deep Learning, and LLM integration Models.
- **Expert-Led Instruction:** Led by Arshad Khan and Sidy Danioko, offering extensive experience in AI design and data science.
- **Flexible Learning Options:** Available in-person in Irvine, CA, with live streaming and future on-demand learning opportunities.

This structured 5-day bootcamp is designed to provide a comprehensive understanding of Data Science and its applications, with a special focus on LLMs. Participants will gain both theoretical insights and practical experience, enabling them to apply AI technologies in their respective fields effectively.

4. Course Content

Here's a comprehensive breakdown for a 5-day bootcamp syllabus, with each day divided into morning and afternoon sessions, focusing on different aspects of Artificial Intelligence, Machine Learning, and Large Language Models (LLMs):

Day 1

Foundations and Practical Applications of Data Science & Machine Learning

Morning Session: Deep dive into Data Science, delving into Artificial Intelligence

Nuances, and elucidating the pivotal role of Big Data and Data Engineering in the overarching framework. Participants garner insights into machine learning fundamentals, encompassing supervised and unsupervised learning paradigms, regression, classification, and clustering techniques. The discourse then shifts to practical business challenges, introducing the DevMasters framework and underscoring nuanced considerations during model implementation. The morning crescendos with intricate discussions on strategizing approaches, formulating evaluation criteria, and engaging in hands-on exercises utilizing the Google Colab environment.

Afternoon Session: Exploratory Analysis, Advanced Techniques, and Project Work

The afternoon session immerses participants in the intricacies of Exploratory Data Analysis, leveraging tools such as Matplotlib and Seaborn, complemented by sophisticated web scraping methodologies and an incipient exploration of time series analysis. Transitioning to advanced machine learning, participants delve into feature engineering intricacies, nuanced modeling methodologies, meticulous fine-tuning strategies, error reduction techniques, and optimization frameworks. The session culminates in an applied context, with participants engaging in hands-on machine learning projects, adeptly applying advanced techniques to real-world challenges utilizing platforms like Google Colab. This consolidated program provides an immersive and technical exploration of Data Science and Machine Learning.



Day 2

Specialization of Machine Learning Fine tuning model Casual Inference

Morning Session: Causal Inference with Python for AI Professionals

This session, "Causal Inference with Python for AI Professionals," is tailored for technical exploration of causal inference specifically designed for AI professionals. The five modules will delve deeply into vital concepts such as distinguishing causality from correlation, introducing Python libraries like DoWhy and CausalML, applying methods such as Propensity Score Matching and Difference-in-Differences, engaging in practical hands-on exercises with real-world data, and concluding with an interactive Q&A session.

Afternoon Session: Advanced Machine Learning Modeling with Causal Inference

This day-long session is a comprehensive review of approaching business challenges with machine learning, guided by the principles of a machine learning framework. We'll discuss crucial components to consider both before and during the implementation of machine learning models. Topics include defining business objectives, strategizing approaches, and establishing evaluation criteria. Practical work will be carried out on a suitable machine learning platform.

Day 3

Advanced AI Techniques for Professionals

Morning Session: NLP, Large Language Models, and Ethical Considerations

Delve into Natural Language Processing (NLP) and Large Language Models (LLM). Master the Natural Language Toolkit for processing and extracting text data. Embark on an NLP project with Yelp data, exploring Sentiment Analysis to predict Yelp reviews. Investigate the transformative impact of LLMs like GPT-3 on natural language understanding and text generation. Address ethical considerations in the realm of LLMs, ensuring a comprehensive understanding of responsible AI.



● **Afternoon Session: Deep Learning Concepts and Real-world Applications**

In the second half of our program, immerse yourself in the concepts of deep learning. Learn about neural network training and visualization using TensorFlow Playground. Actively engage in a business use case, leveraging natural language processing and text analytics. Apply the knowledge and skills gained throughout the program to tackle real-world challenges. This consolidated program offers an in-depth exploration of advanced AI techniques, covering NLP, LLMs, deep learning, and practical applications.

◆ **Day 4**

Master Machine Learning & NLP, Deep Learning models , Computer vision

● **Morning Session: Project-Based Learning - Machine Learning**

In this session, students have the flexibility to choose a project from a range of options offered by TDM. The primary focus of this project is to delve into advanced machine learning models and experience the complete lifecycle, from development to deployment. It provides a hands-on opportunity to apply advanced machine learning techniques and gain insights into the end-to-end deployment process.

● **Afternoon Session: Project-Based Learning - NLP, LLM, and Deep Learning**

During this session, students are empowered to select a project based on their preference within the domains of Natural Language Processing (NLP), Large Language Models (LLM), or Deep Learning. They will have the opportunity to work on their chosen project and gain practical experience in deploying solutions in these areas. This hands-on approach allows participants to apply their NLP, LLM, or deep learning knowledge and bring their projects to fruition.

These project-based sessions offer students the chance to apply their newfound skills and knowledge to real-world scenarios, further enhancing their expertise in data science and its applications.



Day 5

PBL – LLM Model Integration and punning Distillation

Morning Session: Project-Based Learning – NLP Sentimental evaluation

In this session, students have the flexibility to choose a project from a range of options offered by TDM. The primary focus of this project is to delve into advanced machine learning models and experience the complete lifecycle, from development to deployment. It provides a hands-on opportunity to apply advanced machine learning techniques and gain insights into the end-to end deployment process.

Afternoon Session: Project-bases in content generation related with Text , Images , Videos and Voices

During this session, students are empowered to select a project based on their preference within the domains of Natural Language Processing (NLP), Large Language Models (LLM), or Deep Learning. They will have the opportunity to work on their chosen project and gain practical experience in deploying solutions in these areas. This hands-on approach allows participants to apply their NLP, LLM, or deep learning knowledge and bring their projects to fruition.

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Choose Your Learning Path

In-Person Experience in Sunny Orange, Irvine, CA: \$6500

Immerse yourself in a total of 5 action-packed days, with each day filled with 8-10 hours of engaging learning. Join fellow enthusiasts in a vibrant classroom environment and take your Data Science skills to the next level.

Live Streaming Anywhere You Are: \$5000

Can't make it to the classroom? No problem! Our live streaming option brings the full 5-day, 8-10 hour daily experience directly to you, wherever you're located. Dive into Data Science from the comfort of your chosen setting, and stay connected to the latest insights.

Coming Soon: On-Demand Learning for 2024 (Pricing to be Decided)

We're excited to announce that in 2024, you'll have the flexibility of accessing our content on-demand. Get ready to explore Data Science at your own pace, with our comprehensive resources available whenever you need them.



7. Meet Your Instructor

Arshad Khan

Founder / Chief AI Product Design & Innovation

Arshad, MIT CSAIL Professional has 20 yrs of AI experience & founded theDevMasters, offering AI courses for all levels. Aims to create an AI community for learning, collaboration, and innovation. He sees AI as a tool & mindset for problem-solving. He also did his Entrepreneurship Specialization from MIT Sloan Business School.



His entrepreneurial spirit and foresight keep his company at the cutting edge, making significant contributions to the evolving landscape of artificial intelligence and technology.

Sidy Danioko

Chief Data Scientist

Sidy Danioko is a Senior Data Scientist with theDevMasters. He has three Master's degrees in Computational Physics, Mathematics, & Financial Engineering. This type of drive & passion has gained him countless useful data science related technical skills as well as personal skills. Yet his true happiness & desire is to teach.

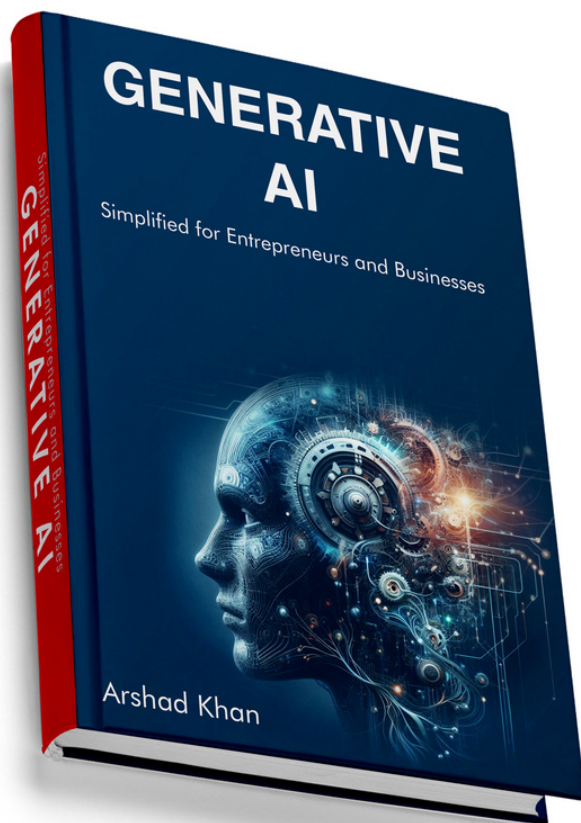


8. Next Step

- ***Complete the form*** on the registration page.
- ***Pay the tuition fee*** through our secure gateway.
- ***Receive a welcome email*** with your login information for the virtual campus.
- ***Gain access to the course content*** prior to the course start date.



Register Now and get the Exclusive Copy* of "Generative AI Simplified for Entrepreneurs and Businesses"



We are thrilled to announce that all participants attending our upcoming program will receive a complimentary copy of the book **"Generative AI Simplified for Entrepreneurs and Businesses."** This exclusive offering is designed to provide you with valuable insights into the world of generative artificial intelligence, tailored specifically for those in the entrepreneurial and business realms.

"Generative AI Simplified for Entrepreneurs and Businesses" delves into the practical applications of generative AI, breaking down complex concepts into easily understandable components. Authored by Mr. Arshad, the book serves as a comprehensive guide to help you harness the power of AI in your business endeavors.

↓ **DOWNLOAD**



9. Our Accolades

12+

Years of
Experience

10+

Serving
Industries

15+

AI experts and
Leaders

3

Our Presence
in countries

100 %

Success
Rate
