



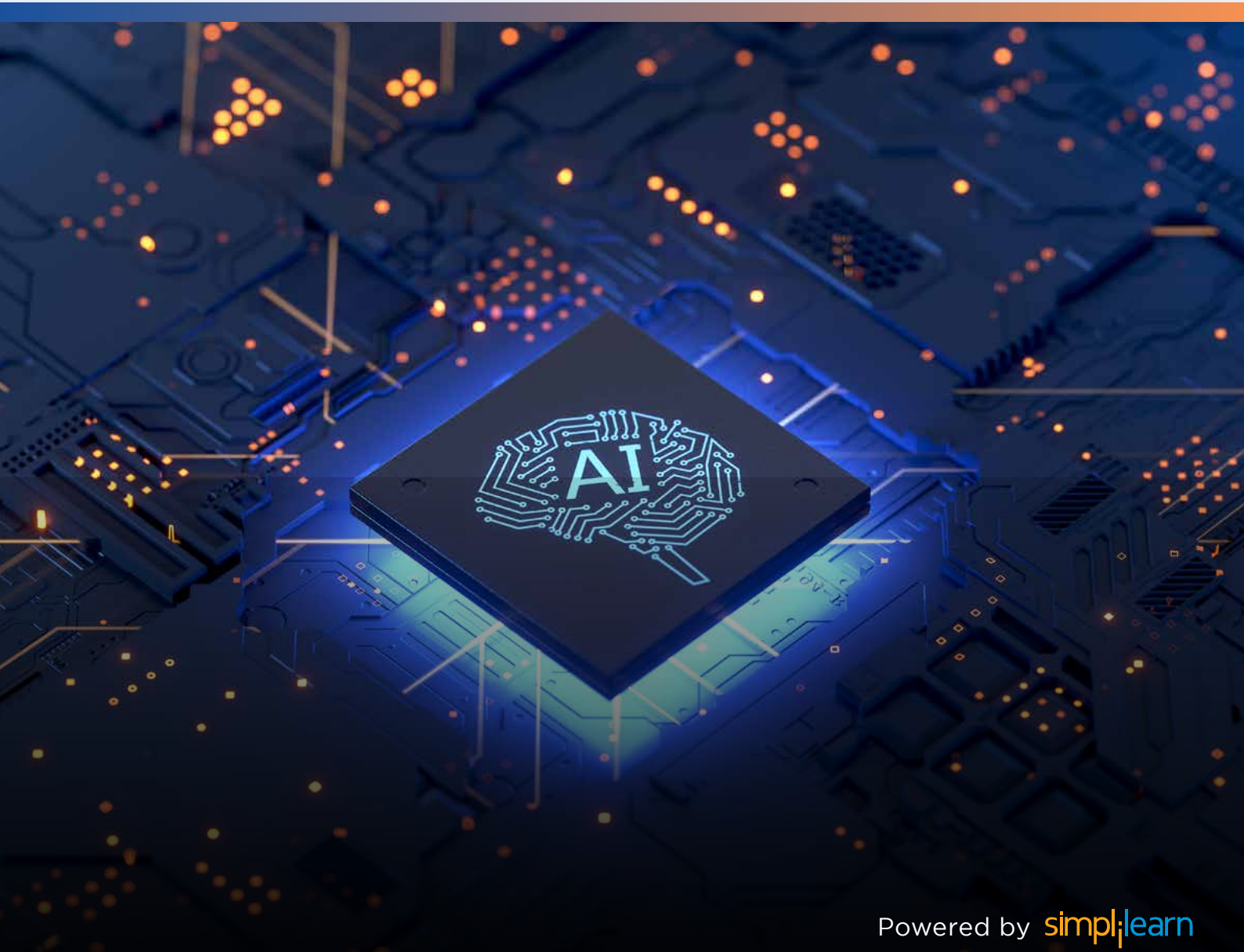
iHUB DivyaSampark
IIT Roorkee

*A joint initiative of Government
of India, Department of Science
& Technology and IIT Roorkee*



DEPARTMENT OF
SCIENCE & TECHNOLOGY
Ministry of Science and Technology
Government of India

Professional Certificate Program in **Generative AI and Machine Learning**



Powered by **simplilearn**

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About the Program

Generative AI is a transformative force reshaping how we live, work and engage with the world. It catalyzes a profound transformation across businesses by revolutionizing content creation, streamlining product design, and redefining customer interactions. Through automated content generation, businesses can produce personalized marketing materials efficiently, while AI-optimized product design accelerates innovation cycles. Virtual assistants powered by Generative AI enhance customer service, providing quick and intelligent responses. Advanced data analysis enables more informed decision-making, and personalized recommendation systems improve user experiences. As a versatile tool, Generative AI contributes to enhanced cybersecurity, language translation, and immersive employee training, collectively reshaping traditional business models and fostering a dynamic and technology-driven landscape.

Our Generative AI and Machine Learning Program offers an immersive learning experience at the forefront of this dynamic and rapidly evolving field. Featuring live virtual classes led by industry experts, interactive, hands-on projects within integrated labs, self-paced video content, and collaborative learning with peers, this program equips you with sought-after skills and practical knowledge of cutting-edge processes, tools, and techniques. Our innovative curriculum encompasses the latest industry advancements, emerging trends, and essential topics, such as Generative AI, prompt engineering, large language models, ChatGPT, machine learning, deep learning, computer vision, natural language processing, speech recognition, and reinforcement learning.

Upon successful completion of the program, you will gain access to Simplilearn's Career Assistance Services, including expert resume writing and personalized interview preparation, to help you advance your career.





About iHUB DivyaSampark, IIT Roorkee

iHUB DivyaSampark aims to enable innovative ecosystems in new-age technologies like AI, ML, drones, robots, and data analytics (often called CPS technologies) and become the source for the next generation of digital technologies, products, and services by promoting, enhancing core competencies, capacity building, manpower training to provide solutions for national strategic sectors and becoming a key contributor to Digital India.

iHUB DivyaSampark, a section 8 company (Non-Government Organization), is a Technology Innovation Hub, at IIT Roorkee and was set up under the National Mission

on Interdisciplinary Cyber-Physical Systems (NM-ICPS), initiated by the Department of Science & Technology (DST) to build innovative solutions, to train manpower and encourage entrepreneurship for the world's current challenges like affordable health care, Industry 4.0 and sustainable smart cities.

It is being coordinated by a high-level inter-ministerial coordination committee headed by Niti Aayog CEO, DST Secretary, Secretary, MeitY, Secretary, D/o Heavy Industry, Secretary, D/o Health Research and Central Line Ministries/Departments are members of this committee.

About Simplilearn

Simplilearn is the world's #1 online bootcamp provider, enabling learners around the globe with rigorous and highly specialized training offered in partnership with world-renowned universities and leading corporations. We focus on emerging technologies and skills, such as data science, AI and machine learning, programming and more, that are transforming the global economy. Our training is hands-on and immersive, including live virtual classes, integrated labs and projects, 24x7 support and a collaborative learning environment. Over two million professionals and 2000 corporate training organizations across 150 countries have harnessed our award-winning programs to achieve their career and business goals.

Key Features



Earn a certificate of completion from iHUB DivyaSampark, IIT Roorkee



Curriculum delivered in live virtual classes by accomplished industry experts



Gain exposure to the latest AI advancements, such as generative AI, prompt engineering, and ChatGPT



Live-online masterclasses delivered by faculties from various eminent institutes



Exclusive hackathons and Ask Me Anything sessions by IBM



Opportunity to attend a two- day campus immersion program by iHUB DivyaSampark at IIT Roorkee



Build expertise in 20+ tools and techniques with seamless access to integrated labs



Work on 25+ hands-on industry-relevant projects and 3 industry-oriented capstone projects



Access to Job Assistance services to enhance your professional profile



Certificates for IBM courses and industry masterclasses by IBM experts

Eligibility Criteria

For admission to this Generative AI & Machine Learning Certification program, candidates:

- ✓ Should have a bachelor's degree with an average of 50% or higher marks.
- ✓ Should have prior knowledge or experience in programming and mathematics.
- ✓ Should have 2+ years of formal work experience (preferred).

Application Process

The application process consists of three simple steps:

1

Submit an Application

Complete the application, including a brief statement of purpose explaining your interest and qualifications for the program.

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2

Application Review

A panel of admissions counselors will review your application and statement of purpose to determine whether you qualify for acceptance.

>>

3

Admission

An offer of admission will be made to qualified candidates. You can accept this offer by paying the program fee.

Talk to an Admissions Counselor

Our team of dedicated admissions counselors is prepared to address your questions or concerns about this Generative AI and Machine Learning program.

Our team is available to:

- ✓ Answer your questions about the application process.
- ✓ Discuss your financing options.
- ✓ Provide insight into the curriculum, program outcomes and more.

Inquire Now

Contact Us | 1-800-212-7688

Generative AI **Industry Trends**

The demand for full-stack developers in India is high. According to a report by the National Association of Software and Services Companies (NASSCOM), the demand for full-stack developers in India is expected to grow by 25% by the end of this year.



\$667.9 billion

Expected Generative AI market size by 2030

Source: Fortune Business Insights



24.4%

Projected annual growth rate (CAGR) of the global Generative AI market from 2023-2030

Source: Statista



\$4.4 trillion

Expected value added by Generative AI to the global economy annually

Source: Mckinsey

Program Outcomes



Explore the latest trends in AI, such as Generative AI, prompt engineering, and ChatGPT, among others.



Identify and clearly explain the foundational concepts that drive generative models.



Understand the crucial role of Transformers in the landscape of modern AI applications.



Comprehend the complex architecture and essential components that make up large language models.



Evaluate the underlying design principles of advanced models such as GPT, BERT, and their counterparts.



Recognize how a model's specific architecture determines its language processing capabilities.



Distinguish among various generative model types, including VAEs, GANs, transformers, and autoencoders.



Assess the most appropriate scenarios for applying different types of Generative AI models.



Gain insights into how attention mechanisms significantly enhance the functionality of transformers.



Evaluate the role and effectiveness of attention mechanisms across diverse generative tasks.



Discuss the importance of attention mechanisms in improving models' interpretability and performance.



Understand the critical role of benchmarking in assessing Generative AI models.



Develop a deeper understanding of advanced strategies for crafting effective prompts in AI models.



Develop expertise in mathematical computation by utilizing the NumPy and scikit-learn packages.



Validate machine learning models and interpret various accuracy metrics.



Analyze and contrast the architectural nuances and goals of popular Generative AI models like GPT and BERT.



Engage in critically analyzing the performance and limitations of Generative AI models across various application domains.



Conduct scientific and technical computations utilizing the SciPy package and its sub-packages, such as Integrate, Optimize, Statistics, IO, and Weave.



Master supervised and unsupervised learning concepts, recommendation systems, and time series modeling.



Gain insight into deep learning and its practical applications.



Comprehend neural networks and navigate through data abstraction layers, leveraging tools like Keras for building computer vision applications.



Perform distributed and parallel computing, harnessing the power of high-performance GPUs.



Grasp the fundamentals of NLP using the widely-used Python Natural Language Toolkit (NLTK).



Execute text-to-speech conversion with automated speech recognition.



Acquire the skills to solve reinforcement learning problems through a range of strategies.



Familiarize yourself with generative adversarial networks (GANs).



Explore the realm of natural language processing (NLP) and natural language generation.



Learn how to apply machine learning and deep learning techniques to NLP.



Utilize Python and TensorFlow to gain a solid understanding of reinforcement learning theory.



Gain comprehensive knowledge of AI and ML, encompassing their meaning, purpose, scope, stages, applications, and impacts.

Who Should **Enroll in this Program?**

This program caters to professionals from diverse backgrounds and industries who are eager to enhance their AI and machine learning skills. This program fosters a dynamic learning environment that benefits from multiple perspectives by bringing together individuals from various fields. This program is best suited for, but not limited to, those pursuing or currently employed in these roles:

IT Professionals



Software Engineers



Consultants



Analysts



Developers



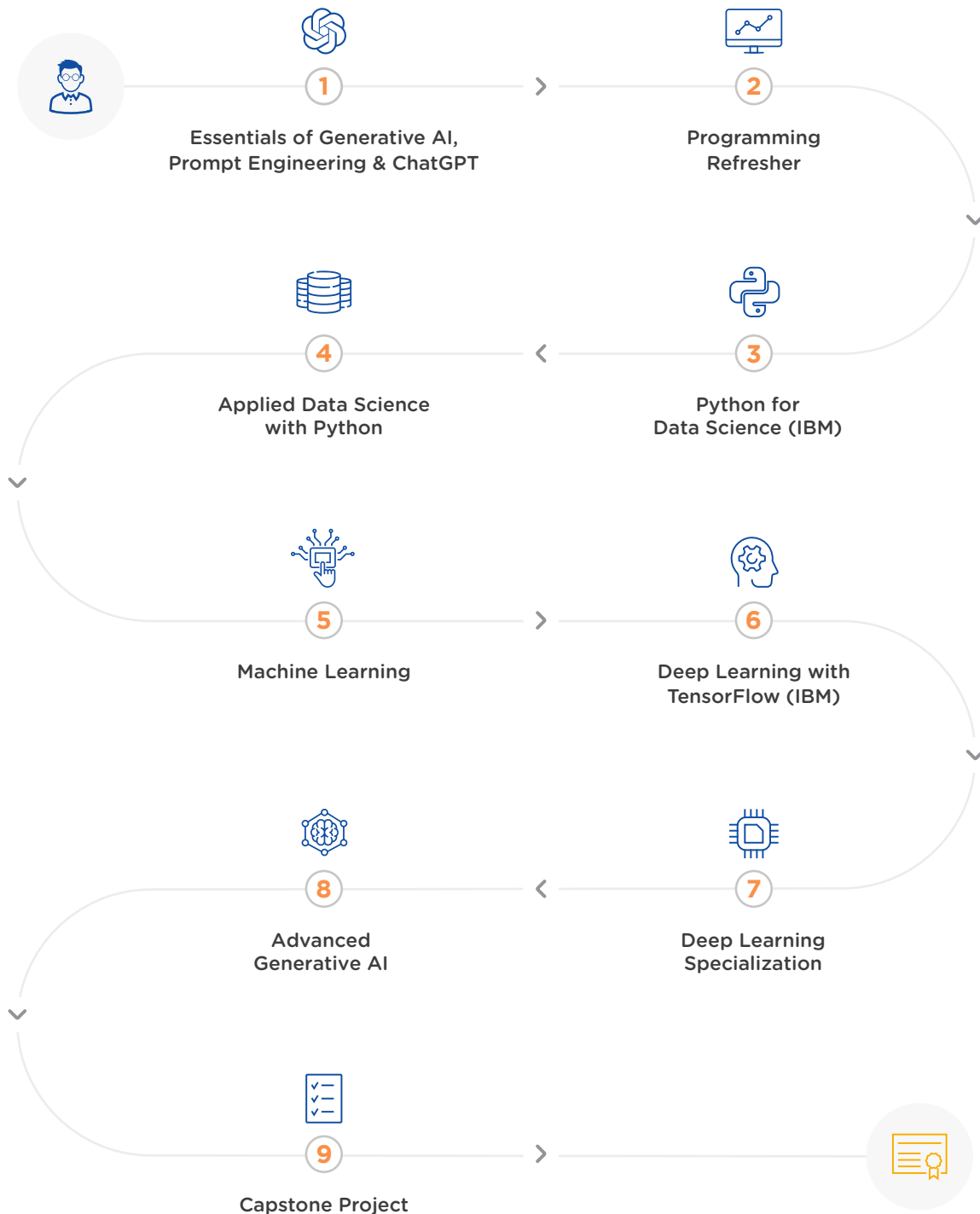
Product Managers



Recent graduates and aspiring AI and ML professionals



Learning Path Visualization



Electives

- ✓ ADL & Computer Vision
- ✓ NLP & Speech Recognition
- ✓ Reinforcement Learning
- ✓ Academic Masterclass
- ✓ Industry Masterclass

Essentials of Generative AI, Prompt Engineering & ChatGPT

This comprehensive course provides a foundational understanding of Generative AI models, specifically focusing on ChatGPT. Participants will acquire an all-encompassing grasp of the fundamentals of generative AI and its scope, prompt engineering, explainable AI, conversational AI, ChatGPT, other large language models and much more.

Learning Outcomes

Upon completion of the course, participants will be able to:

- ✔ Understand the fundamentals of generative AI models, including various types and working principles
- ✔ Comprehend the concept of explainable AI, recognize its significance, and identify different approaches to achieve explainability in AI systems
- ✔ Apply effective prompt engineering techniques to enhance the performance and control the behavior of generative AI models
- ✔ Develop a deep understanding of ChatGPT, including its mechanisms, notable features, and limitations
- ✔ Identify and explore diverse applications and use cases where ChatGPT can be leveraged
- ✔ Gain exposure to fine-tuning techniques to customize and optimize ChatGPT models for specific tasks and domains
- ✔ Recognize the ethical challenges of generative AI models and ChatGPT, and develop strategies for responsible data usage, bias mitigation, and misuse prevention
- ✔ Understand the potential of generative AI to revolutionize industries and delve into prominent generative AI tools
- ✔ Identify and implement security measures to protect ChatGPT from unauthorized access and ensure safe and non-offensive content generation
- ✔ Learn techniques to monitor ChatGPT for performance issues and identify and debug incorrect or unexpected outputs
- ✔ Understand how to maintain and update ChatGPT models with the latest features and improvements
- ✔ Gain insights into the future of generative AI, its challenges, and the necessary steps to unlock its full potential

Topics Covered

The course covers the following topics:

- ✓ Introduction to Generative AI Models
- ✓ Explainable AI
- ✓ Prompt Engineering
- ✓ ChatGPT
- ✓ Fine-tuning ChatGPT
- ✓ Ethical Considerations in Generative AI Models & ChatGPT
- ✓ The Future of Generative AI
- ✓ Deploying and Scaling ChatGPT
- ✓ Security and Privacy Considerations
- ✓ Monitoring and Debugging ChatGPT
- ✓ Maintaining ChatGPT

Step 2

Programming Refresher

This course provides you with essential Python programming skills that will serve as the building blocks for your entire program journey. You will learn how to implement artificial intelligence (AI) and machine learning (ML) algorithms, conduct data analysis, and construct intelligent systems effectively using Python.

Learning Outcomes

- ✓ Learn about procedural and object-oriented programming
- ✓ Understand the benefits and advantages of utilizing Python
- ✓ Install Python and its integrated development environment (IDE)
- ✓ Familiarize yourself with the Jupyter Notebook and its usage
- ✓ Implement Python identifiers, indentation, and comments effectively
- ✓ Identify Python's data types, operators, and string functions
- ✓ Learn about different types of loops in Python
- ✓ Explore the scope of variables within functions

- ✔ Explain the concepts of object-oriented programming (OOP) and its characteristics
- ✔ Describe methods, attributes, and access modifiers in Python
- ✔ Gain an understanding of multi-threading

Topics covered

- ✔ Fundamentals of Programming
- ✔ Introduction to Python Programming
- ✔ Python Data Types and Operators
- ✔ Conditional Statements and Loops in Python
- ✔ Python Functions
- ✔ Object-Oriented Programming Concepts with Python
- ✔ Threading

Step 3

Python for Data Science (IBM)

Designed by IBM, this course teaches students how to leverage Python for data science. Upon completion, you will be able to write Python scripts and conduct critical hands-on data analysis using a Jupyter-based lab environment.

Learning Outcomes

- ✔ Use variables, strings, functions, loops, and conditions to create your first Python program
- ✔ Gain an understanding of lists, sets, dictionaries, conditions, branching, objects, and classes
- ✔ Leverage pandas to load, manipulate, and save data, as well as read and write files in Python

Topics covered

- ✔ Python Basics
- ✔ Python Data Structures
- ✔ Python Programming Fundamentals
- ✔ Working with Data in Python
- ✔ Working with NumPy Arrays

Step 4

Applied Data Science with Python

This course provides comprehensive coverage of key concepts in data science, encompassing essential topics such as data preparation, model development, and evaluation. Throughout the course, you will develop a strong understanding of fundamental Python concepts such as strings, Lambda functions, and lists. Additionally, you will explore various essential important tools and libraries, including NumPy for efficient array manipulation, linear algebra for mathematical foundations, and statistical concepts such as measures of central tendency and dispersion, skewness, covariance, and correlation. The course also delves into hypothesis testing methods such as the Z-test, T-test, and ANOVA while emphasizing data manipulation techniques using Pandas. Furthermore, you will acquire data visualization skills using popular libraries like Matplotlib, Seaborn, Plotly, and Bokeh.

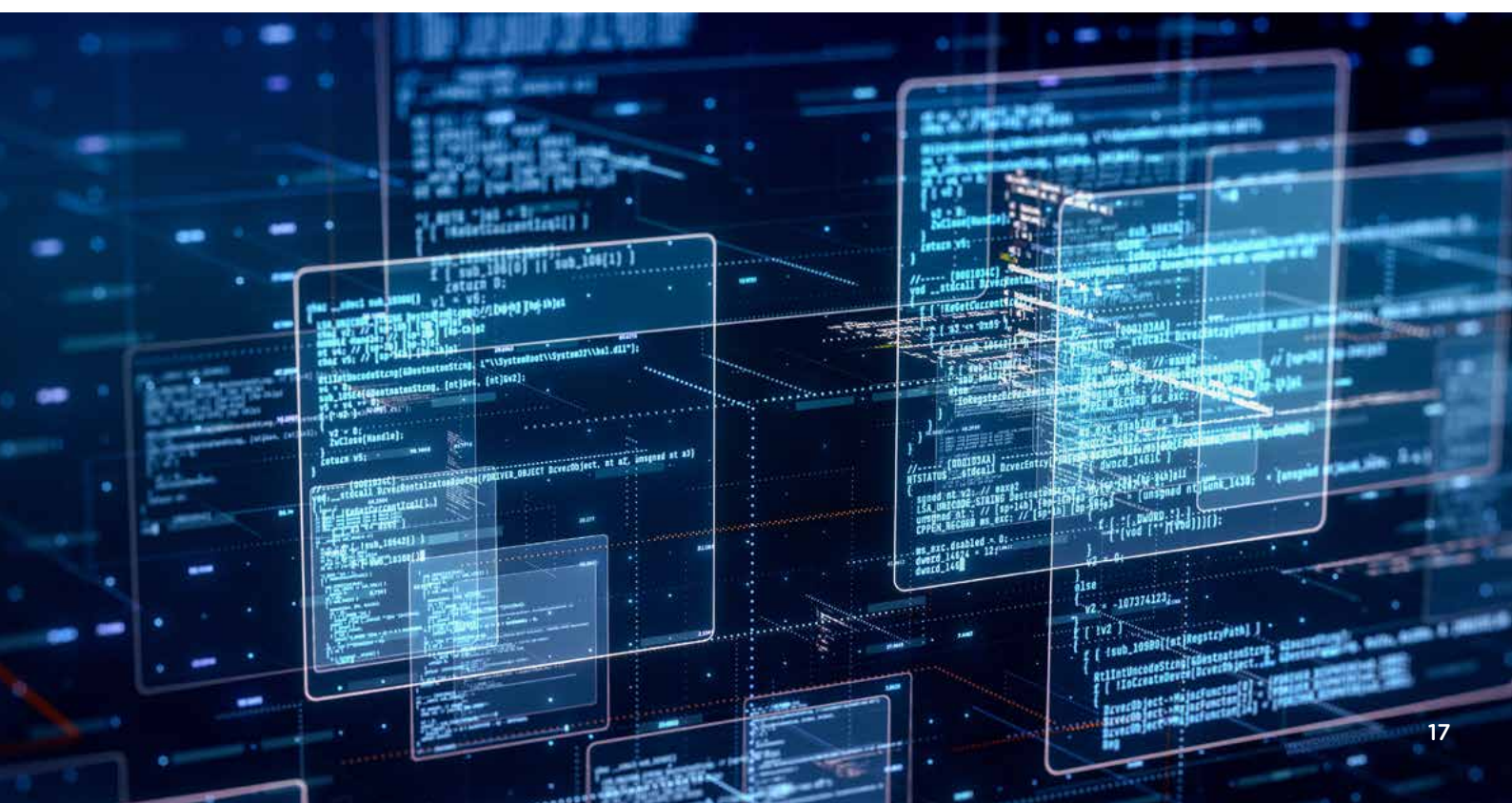
Learning Outcomes

- ✔ Explain the fundamental principles and applications of data science
- ✔ Explore the processes involved in data preparation, model building, and evaluation
- ✔ Apply Python concepts, including strings, Lambda functions, and lists
- ✔ Develop a strong understanding of NumPy and its application in array indexing and slicing
- ✔ Gain familiarity with linear algebra principles and their relevance in data science
- ✔ Understand the role of calculus in linear algebra applications
- ✔ Calculate and interpret measures of central tendency and dispersion
- ✔ Grasp statistical concepts such as skewness, covariance, and correlation

- ✔ Understand Describe the concepts of the null hypothesis and alternate hypothesis
- ✔ Examine different hypothesis tests, including the Z-test and T-test
- ✔ Understand the concept of ANOVA (Analysis of Variance)
- ✔ Work effectively with pandas' primary data structures: Series and DataFrame
- ✔ Utilize pandas to load, index, reindex, and merge data
- ✔ Prepare, format, normalize, and standardize data using techniques like data binning
- ✔ Construct visually appealing and informative graphs using Matplotlib, Seaborn, Plotly, and Bokeh

Topics Covered

- ✔ Introduction to Data Science
- ✔ Essentials of Python Programming
- ✔ NumPy
- ✔ Linear Algebra
- ✔ Statistics Fundamentals
- ✔ Probability Distributions
- ✔ Advanced Statistics
- ✔ Working with Pandas
- ✔ Data Analysis
- ✔ Data Wrangling
- ✔ Data Visualization
- ✔ End-to-End Statistics Application in Python



Core: Machine Learning

This course provides comprehensive coverage of various types of machine learning and their practical applications. You will explore the machine learning pipeline and delve into topics such as supervised learning, regression models, and classification algorithms. You will also study unsupervised learning, including clustering techniques and ensemble modeling. Evaluate machine learning frameworks like TensorFlow and Keras, and build a recommendation engine with PyTorch.

Learning Outcomes

- ✓ Examine the different types of machine learning and their characteristics
- ✓ Analyze the machine learning pipeline and understand the operations involved in MLOps (Machine Learning Operations)
- ✓ Learn about supervised learning and its real-world applications
- ✓ Understand the concepts of overfitting and underfitting, and learn how to detect and prevent both
- ✓ Analyze different types of regression models and their applications
- ✓ Identify linearity between variables and create correlation maps
- ✓ List various types of classification algorithms and understand their applications
- ✓ Master different types of unsupervised learning techniques
- ✓ Determine when to use unsupervised algorithms and explore different clustering methods
- ✓ Examine various ensemble modeling techniques such as bagging, boosting, and stacking
- ✓ Evaluate different machine learning frameworks, including TensorFlow and Keras
- ✓ Build a recommendation engine using the PyTorch library

Topics covered

- ✓ Machine Learning Fundamentals
- ✓ Supervised Learning
- ✓ Regression Models and Applications
- ✓ Classification Models and Applications
- ✓ Unsupervised Learning
- ✓ Ensemble Learning
- ✓ Recommendation Systems

Step 6

Deep Learning with Tensorflow (IBM)

This course will take your machine learning skills to the next level by providing a comprehensive understanding of deep learning with TensorFlow and Keras. You'll become proficient in deep learning concepts, enabling you to construct artificial neural networks and navigate through layers of data abstraction. By unlocking big data's true potential, this course will prepare you for new frontiers in artificial intelligence.

Learning Outcomes

- ✓ Develop a profound understanding of neural networks and their application in deep learning.
- ✓ Achieve expertise in TensorFlow and Keras, critical tools in deep learning.
- ✓ Delve into Convolutional Neural Networks (CNNs) and understand their real-world applications.
- ✓ Acquire familiarity with Recurrent Neural Networks (RNNs) and Autoencoders.
- ✓ Enhance your neural networks performance using methods like L2 Regularization and Dropout Layers.
- ✓ Develop Autoencoder models for anomaly detection.

Topics Covered

- ✓ Introduction to AI and Deep Learning
- ✓ Artificial Neural Network
- ✓ Deep Neural Network and Tools
- ✓ Convolutional Neural Networks (CNN)
- ✓ Optimization, Tuning, and Interpretability of Deep Neural Networks
- ✓ Recurrent Neural Networks Autoencoders

Step 7

Deep Learning Specialization

This comprehensive course provides you with the necessary skills to deploy deep learning tools using AI/ML frameworks. You will explore the fundamental concepts and applications of deep learning and understand the distinctions between deep learning and machine learning. The course covers a range of topics, including neural networks, forward and backward propagation, TensorFlow 2, Keras, performance improvement techniques, model interpretability, convolutional neural networks (CNNs), transfer learning, object detection, recurrent neural networks (RNNs), autoencoders, and creating neural networks in PyTorch. By the end of the course, you will have a solid foundation in deep learning principles and the ability to effectively build and optimize deep learning models using Keras and TensorFlow.

Learning Outcomes

- ✓ Gain an understanding of the differences between deep learning and machine learning.
- ✓ Learn about the practical applications of deep learning.
- ✓ Understand different types of neural networks
- ✓ Master the concepts of forward propagation and backward propagation in deep neural networks (DNN)
- ✓ Get introduced to modeling and performance improvement techniques in deep learning
- ✓ Comprehend hyperparameter tuning and model interpretability
- ✓ Learn about dropout and early stopping techniques and their implementation
- ✓ Master convolutional neural networks (CNNs) and object detection

- ✔ Grasp the fundamentals of recurrent neural networks (RNNs)
- ✔ Understand the basics of PyTorch and learn how to create a neural network using PyTorch

Topics Covered

- ✔ Introduction to Deep Learning
- ✔ Artificial Neural Networks
- ✔ Deep Neural Networks
- ✔ TensorFlow
- ✔ Model Optimization and Performance Improvement
- ✔ Convolutional Neural Networks (CNNs)
- ✔ Transfer Learning
- ✔ Object Detection
- ✔ Recurrent Neural Networks (RNNs)
- ✔ Transformer Models for Natural Language Processing (NLP)
- ✔ Getting Started with Autoencoders
- ✔ PyTorch

Step 8

Advanced Generative AI

Take a plunge into the groundbreaking Generative AI concepts with this advanced course. As part of this course, you will thoroughly explore neural networks, LLMs and their architectures, and the different types of generative models such as VAEs, GANs, Autoencoders, and Transformer-based models. You will also delve into the popular Gen AI models like GPT, BERT, and T5 and how to benchmark them. Through hands-on learning, you'll get first-hand experience of developing and deploying a conversational chatbot that can engage in meaningful dialogues.

Learning Outcomes

Upon completion of the course, participants will be able to:

- ✔ Understand the crucial role of Transformers in the landscape of modern AI applications.
- ✔ Analyze how well neural network architectures are suited for tasks that involve generation.

- ✔ Identify and clearly explain the foundational concepts that drive generative models.
- ✔ Comprehend the complex architecture and essential components that make up large language models.
- ✔ Evaluate the underlying design principles of advanced models such as GPT, BERT, and their counterparts.
- ✔ Recognize how the specific architecture of a model determines its capabilities in language processing.
- ✔ Distinguish among various generative model types, including VAEs, GANs, Transformers, and Autoencoders.
- ✔ Assess the most appropriate scenarios for applying different types of generative AI models
- ✔ Gain insights into how attention mechanisms significantly enhance the functionality of Transformers.
- ✔ Evaluate the role and effectiveness of attention mechanisms across diverse generative tasks.
- ✔ Discuss the importance of attention mechanisms in improving both the interpretability and performance of models.
- ✔ Analyze and contrast the architectural nuances and goals of popular generative AI models like GPT and BERT.
- ✔ Understand the critical role of benchmarking in the assessment of generative AI models.
- ✔ Engage in a critical analysis of the performance and limitations of generative AI models across various application domains.
- ✔ Develop a deeper understanding of advanced strategies for crafting effective prompts in AI models:
 - Analyze and utilize advanced strategies for crafting prompts that steer models towards intended outputs.
 - Investigate methods for refining prompts to draw out particular responses from language models.
 - Identify and mitigate potential biases in prompt design and their effects on model behavior.

Topics Covered:

The course covers the following topics:

- ✔ Introduction to Generative Models
- ✔ Large Language Models Architecture
- ✔ Types of Generative AI Models
- ✔ Attention Mechanisms and Transformers
- ✔ Popular Generative AI Models
- ✔ Benchmarking & Evaluating Models
- ✔ Advanced Prompt Engineering Techniques

Step 9

Capstone Project

The capstone project allows you to implement the skills you will learn throughout this program. You will solve industry-specific challenges by leveraging various AI and ML techniques. The capstone project is the final step in the core learning path and will help you showcase your expertise to employers.

Learning Outcomes

The capstone project will enhance your understanding of the Artificial Intelligence decision cycle, including performing exploratory data analysis, building and fine-tuning a model with cutting-edge AI-based algorithms, and representing results.

Electives

Advanced

Advanced Deep Learning and Computer Vision

In this advanced course, you will gain in-depth knowledge and practical skills in computer vision and deep learning techniques. The course covers various topics, including image formation and processing, convolutional neural networks (CNNs), object detection, image segmentation, generative models, optical character recognition, distributed and parallel computing, explainable AI (XAI), and deploying deep learning models. By the end of the course, you will have the expertise to tackle complex computer vision challenges and successfully deploy deep learning models.

Advanced

Natural Language Processing and Speech Recognition

This advanced course comprehensively explores applying machine learning algorithms to process vast amounts of natural language data. It focuses primarily on natural language understanding, feature engineering, natural language generation, automated speech recognition, speech-to-text conversion, text-to-speech conversion, voice assistance devices, and building Alexa skills. By the end of the course, you will have a deep understanding of the science behind natural language processing and speech recognition, enabling you to develop advanced applications in these areas.

Advanced

Reinforcement Learning

This course delves into the core concepts of reinforcement learning (RL), providing you with the knowledge and skills to solve RL problems using various strategies in Python and TensorFlow. You will learn the theoretical foundations of RL and gain practical experience in applying RL algorithms as a problem-solving strategy. By the end of the course, you will be equipped with the skills to use reinforcement learning in diverse applications and scenarios effectively.

Skills Covered

- ✓ Generative AI
- ✓ ChatGPT
- ✓ Statistics
- ✓ Supervised and Unsupervised Learning
- ✓ Model Evaluation and Validation
- ✓ Deep Learning
- ✓ Computer Vision
- ✓ Speech Recognition
- ✓ Prompt Engineering
- ✓ Explainable AI
- ✓ Machine Learning Algorithms
- ✓ Model Training and Optimization
- ✓ Ensemble Methods
- ✓ Natural Language Processing
- ✓ Reinforcement Learning

Tools Covered



Projects



eCommerce

Develop a shopping app for an eCommerce company using Python.



Entertainment

Perform cluster analysis to create a recommended playlist of songs for users based on their user behavior.



Human Resources

Build a machine learning model that predicts employee attrition rate at a company by identifying patterns in their work habits and desire to stay with the company.



Food Service

Use data science techniques, such as time series forecasting, to help a data analytics company forecast demand for different items across restaurants.



Retail

Use exploratory data analysis and statistical techniques to understand the factors that contribute to customer acquisition for a retail firm.



Real Estate

Use feature engineering to identify the top factors that influence price negotiations in the homebuying process.



Production

Perform feature analysis to understand the features of water bottles using EDA and statistical techniques to understand their overall quality and sustainability.



Health Care

Use distributed training to construct a CNN model capable of detecting diabetic retinopathy and deploy it using TensorFlow Serving for an accurate diagnosis.



BFSI

Use deep learning to construct a model that predicts potential loan defaulters and ensures secure and trustworthy lending opportunities for a financial institution.



Health Care

Leverage deep learning algorithms to develop a facial recognition feature that helps diagnose patients for genetic disorders and their variations.



Tourism

Use AI to categorize images of historical structures and conduct exploratory data analysis (EDA) to build a recommendation engine that improves marketing initiatives for historic locations.



Shipping

Use deep learning concepts, such as Convolutional Neural Networks (CNN), to automate a system that detects and prevents faulty situations resulting from human error and identifies the type of ship entering the port.



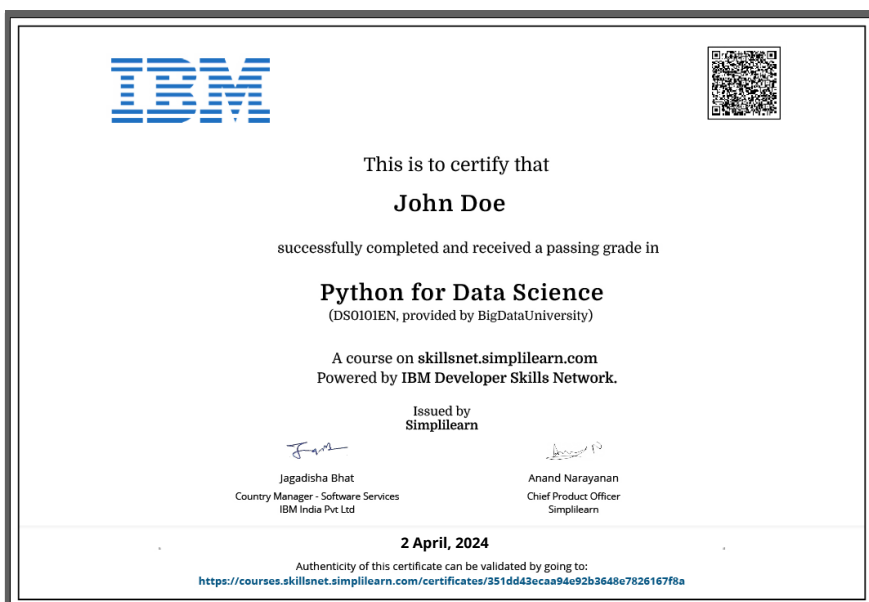
Automobile

Examine accident data involving Tesla's auto-pilot feature to assess the correlation between road safety and the use of auto-pilot technology.

Certificates

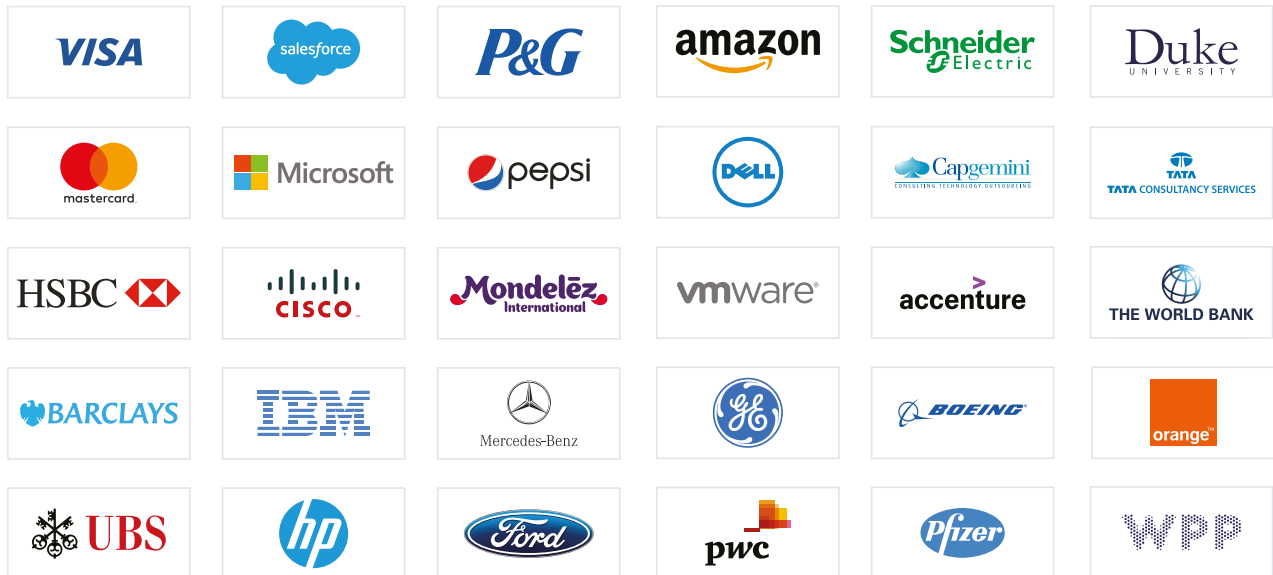
iHUB DivyaSampark, IIT Roorkee has chosen to collaborate with Simplilearn for online professional programs. Simplilearn's award-winning immersive learning model delivered via live virtual classes focuses on applied learning methods to create immediate career impact. In addition to world-class learning, learners will also gain access to lifetime self-learning content.

Upon successful completion of this program, you will receive a certificate of completion from iHUB DivyaSampark, IIT Roorkee. You will also receive IBM certificates (sample IBM certificate shown below) for all IBM courses, along with certificates from Simplilearn for the courses completed in the learning path. These certificates will testify to your skills as an Generative AI and ML expert.



Corporate Training

Top clients we work with:



Features of Corporate Training



Tailored learning solutions



Flexible pricing options



Enterprise-grade learning management system (LMS)



Enterprise dashboards for individuals and teams



24X7 learner assistance and support



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