Northeastern University

Experiential Learning at Work

Customized Learning Course Catalog

Drive business **results** with targeted, **experiential learning** for your team

Northeastern University's Roux Institute delivers customized talent development programs that address business challenges in key areas like AI, data analytics, and project management.

OUR APPROACH

We deliver programs that transform how teams and individuals approach their work. Our courses are designed to drive business outcomes and deliver measurable results. We empower employees to apply new skills directly in their work.

- → We **design highly-interactive**, experiential learning, delivered by expert faculty and staff
- → We **collaborate with our partners** to integrate their tech stack and incorporate industry and role specific scenarios, ensuring the learning is aligned and purposeful
- → We **elevate technical staff** with essential new skills and support non-technical learners in building fluency in key tech skills relevant to their roles
- → We **intentionally prioritize time** in our sessions for participants to actively "do the work" and create meaningful connections with their colleagues

OUR PROCESS

To ensure we design and deliver a high-quality product, we:

- → **Assess and understand** your organization's current capabilities and skills
- → **Identify and recommend** learning sequences and course progressions aligned to your business priorities
- → **Co-design learning experiences** with your input, customizing content to maximize effectiveness
- → **Deliver learning experiences** at dates and times that suit your team's capacity and learning objectives
- → **Collect and share** participant feedback to evaluate program efficacy

VIEW OUR PROGRAMS →

Accelerating Coding with AI

3–4 HOURS

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This course is best for software engineers and technical team members who want to leverage generative AI tools to enhance their coding productivity. The goal of the course is to provide learners with practical strategies for integrating AI-assisted engineering into their development workflow and to teach them how to use these tools effectively as intelligent pair programming partners.

KEY SKILLS COVERED:

- → AI-Assisted Software Engineering
- → Context Engineering for AI Tools
- → Test-Driven Development with GenAI

UPON COMPLETION OF THE COURSE, LEARNER OUTCOMES INCLUDE:

- → Compare vibe coding with AI Assisted Engineering
- → Explain how AI Assisted Engineering fits into the software development lifecycle
- → Incorporate GenAI tools into test-driven development
- → Explain how AI Assisted Engineering can be thought of as pair programming, and which styles are the most effective
- → Explain context engineering and create a context.md file

PREREQUISITES:

- → Python programming experience or completion of Foundations in Python for Scaling Data Analysis*

POTENTIAL LEARNERS

- → Software Engineers
- → Data Scientists
- → Data Engineers
- → Technical Team Members

The course may be adapted for participants with experience in other programming languages, subject to confirmation and availability.

Advancing Effective Project Management Practices

4–12 HOURS

This course is ideal for professionals seeking to build foundational project management skills, as well as those looking to improve their current project management by incorporating best practices. The course covers the entire project life cycle. In shorter versions of the course, participants will learn to approach project management with an intentional and strategic mindset, understanding the underlying purpose of projects as well as the key considerations within each phase. Longer options allow for deep dives into particular phases, with time to apply learnings to current real-world projects. We can also deliver this course with an Agile lens, if desired.

KEY SKILLS COVERED:

- → Initiating Projects
- → Conducting Stakeholder Analysis
- → Planning Project Communication
- → Identifying and Managing Risks
- → Leading Effective Meetings
- → Resolving Project Conflicts
- → Monitoring + Controlling Projects
- → Closing Out Projects

UPON COMPLETION OF THE COURSE, LEARNER OUTCOMES INCLUDE:

- → Uniform application of project management processes and best practices across the life cycle
- → Improve project management skill set in selected focus areas of the project management lifecycle
- → Adapt the project management process to meet organizational needs
- → Draft project management assets and templates

POTENTIAL LEARNERS

- → Analysts
- → Marketing Managers
- → Operations/Administrative Managers
- → Product Managers
- → Project Coordinators
- → Team Leads/Supervisors

Assessing and Developing AI and Analytics Talent

2 HOURS

This course is best for organizational or team leaders looking to understand and strategically respond to the current state of AI and analytic readiness within their organization. Participants will systematically evaluate their teams' analytic capabilities, pinpointing key skill gaps and potential development areas through expert-led discussions and small-group exercises geared at both the organizational and role-specific perspective. By the end of the session, leaders will be equipped to strategically enhance their AI and analytics capabilities, driving meaningful business outcomes.

UPON COMPLETION OF THE COURSE, LEARNER OUTCOMES INCLUDE:

→ Assess organizational and critical role readiness for AI and analytics initiatives

→ Identify and prioritize key learning experiences to drive results aligned to AI and analytic opportunities

PREREQUISITES:

→ Knowledge of the organization's business context and strategic priorities

→ General knowledge of the organization's data and digital transformation initiatives

POTENTIAL LEARNERS

→ Senior Executives or Organization Leaders

→ Talent and HR Leaders

→ Strategy or Innovation Leaders

→ Technology Leaders

Building Predictive and Prescriptive AI Data Models

9–12 HOURS **T**

This course is best for technical scientists, engineers, or technical data analysts who want to become proficient in Python-based machine learning for predictive and prescriptive data modeling. The goal of the course is to provide learners with the tools they need to get started with supervised and unsupervised learning and to teach them practical ways to build their own machine-learning solutions.

KEY SKILLS COVERED:

→ Data Science

→ Machine Learning in Python (Scikit-learn, Keras, Fast.ai in longer course)

LEARNER OUTCOMES INCLUDE:

→ Summarize the data requirements and assumptions for various machine learning models

→ Define metrics that evaluate the model's performance against the use case

→ Explain the needs and use cases for the type of ML most relevant to the company (Classification, Regression, or Unsupervised Learning)

→ Prepare data for training and analysis using Python

→ Train and test a machine-learning model in Python

PREREQUISITES:

→ Experience working with data in a scripting language such as Python or R*

→ Knowledge of probability and statistics, algebra, linear algebra (preferred), and calculus (preferred)

POTENTIAL LEARNERS

→ Analysts

→ AI Engineers

→ Data Engineers

→ Software Engineers

**If participants have experience working with data in a different language, they can complete a Python tutorial before the start of the course.*

Communicating Effectively with Data Visualizations

4–12 HOURS

This course is best for anyone who makes data-informed decisions or uses data visualizations in presentations or written communication. Since effective communication of data insights is critical in a data-driven organization, this course offers an overview of informational design concepts and communication best practices, along with support in the tools to build visualizations. Upon completion, learners will have the necessary skills to share insights with audiences across their organizations and drive change based on their analyses. This course can be tailored to non-technical or technical audiences.

KEY SKILLS COVERED:

→ Data Visualization

→ Data Communication

LEARNER OUTCOMES INCLUDE:

→ Create a story using data, ensuring it is aptly customized for the intended audience to invoke the desired change

→ Identify the intended audience, the desired action, and the resulting data communication plan

→ Create visualizations in Excel, BI tools, R, or Python to effectively convey a data message

→ Customize data visualizations to elicit action in specific audiences

→ Tailor communication for technical and non-technical audiences

→ Assess the impact of your data story on your target audience, and refine your presentation to better align with the needs of the target audience

POTENTIAL LEARNERS

→ Analysts

→ Data Scientists

→ Operations Managers

→ Product Managers

→ Research Scientists

→ Team Leaders

Cultivating Data-Driven Decision Making

4–6 HOURS

This course is best for anyone who wants to learn how to leverage data to drive business growth. It covers data exploration, problem-solving, and the effective presentation of results. Participants will learn how to approach a dataset with a business challenge in mind, how to apply descriptive statistics, and the basics of data visualization.

KEY TOPICS COVERED:

- → Data Analysis
- → Statistics
- → Data Visualization
- → Data Communication

LEARNER OUTCOMES INCLUDE:

- → Identify opportunities in your industry to leverage data-driven decision-making
- → Generate intentional questions about data to solve a business problem
- → Identify and resolve common data quality issues
- → Interpret basic statistical tests to understand the strength of an insight
- → Analyze data to create a call to action based on data-driven insights
- → Create effective data visualizations to address a business question

POTENTIAL LEARNERS

- → Analysts
- → Data Visualization Specialists
- → Marketing Managers
- → Organizational/Departmental Leaders
- → Operations Managers
- → Product/Project Managers

Developing an Organizational Data Strategy

4 HOURS

Organizations eager to become more data-driven as part of their digital transformation need to consider the pragmatic steps for how they will achieve this – through a robust data strategy. Many organizations focus primarily on tech as the driver of digital transformation, overlooking the critical impact of a comprehensive data strategy that considers both strategic and operational contexts. Strategically, businesses must establish who makes data decisions, how data creates business value, what architecture will scale with growth, and how security requirements will be met. Operationally, companies must also focus on developing staff capabilities, ensuring data integrity, maximizing accessibility, and facilitating organizational adaptation. This course enables business and technology leaders to align on these pillars – and provides a structured environment for identifying key focus areas. Substantial time will be spent ideating practical actions to immediately improve your organization's data strategy in these areas.

KEY TOPICS COVERED:

- → Data strategy and its importance to digital transformation
- → Core strategic and operational pillars of a comprehensive data strategy
- → Internal and external factors that impact your data strategy
- → Approach for drafting an achievable, pragmatic data strategy with stakeholder buy-in

LEARNER OUTCOMES INCLUDE:

- → Shared understanding of the data strategy pillars to extend discussions beyond the course
- → Stronger individual and collective capability to address data challenges and tradeoffs
- → Identified priority focus area crucial for creating an organizational data strategy and a beginning action plan with which to implement

POTENTIAL LEARNERS

- → Business function leaders (departmental, business unit, etc.)
- → Analytical function leaders (BI, Analyst, Data Engineering, Data Scientists, etc.)
- → Senior Executives

Empowering Self-Service Data Warehouse Access with SQL

8–12 HOURS **T**

This course is best for data consumers or practitioners who want to have finer-grained control over the data entering their analysis (BI) tools. Analysts will learn how to use the Structured Query Language (SQL) to access, combine, filter, summarize, and export data from relational databases. Participants will learn how to find the data they need by interpreting Entity Relationship Diagrams (ERD) models of database structure. This course will include a discussion of potential issues that users may encounter when dealing with data warehouses, such as data duplication, missing values, and choosing the right table. Overall, learners will be empowered to shift common data exploration, pre-processing, and integrity management out of BI tools and into the data warehouse, gaining efficiency with large datasets and supporting ongoing data integrity at its source.

KEY SKILLS COVERED:

- → Relational Database Fundamentals
- → Structured Query Language (SQL)
- → Data Integrity Management
- → ETL Basics and Best Practices

LEARNER OUTCOMES INCLUDE:

- → Find desired data by interpreting Entity Relationship Diagrams (ERDs)
- → Increase data processing speed by using SQL to combine, filter, and summarize very large datasets before loading them into BI tools
- → Shift data pre-processing from the BI tool to the SQL database in order to increase processing efficiency and improve self-service dashboard experience
- → Screen for common data integrity issues before exporting the data to improve accuracy and build trust in the common data source
- → Automate data updates by writing efficient and schedulable SQL queries

POTENTIAL LEARNERS

- → Analysts
- → Database Administrators
- → Data Scientists
- → Reporting Specialists

Ensuring Data Quality and Compliance Through Governance

4–8 HOURS

This course is best for data leaders who would like to enhance their understanding of data governance to ensure data quality, compliance, and alignment with business objectives. The course provides a comprehensive overview of data governance principles, focusing on practices that ensure data quality, compliance, and accountability. In the 4-hour workshop, participants will create a basic data governance framework for a specific dataset from your organization. In the 6 and 8-hour workshops, participants will expand their data governance framework by mapping data lineage, managing metadata, and developing a risk mitigation plan.

KEY SKILLS COVERED:

→ Data Governance

→ Data Lineage

→ Risk Mitigation

→ Metadata Management

LEARNER OUTCOMES INCLUDE:

→ Explain the importance of data governance in your industry

→ Identify and describe the essential components of a data governance framework, including policies, standards, roles, and responsibilities

→ Conduct a comprehensive data inventory and classification for a specific dataset, categorizing data based on sensitivity, value, and compliance requirements

→ Develop a basic data governance framework for a selected dataset, assigning key roles and responsibilities

→ Map the data lineage for a critical process within the organization, identifying potential data flow risks, and develop a risk assessment and mitigation plan to address these risks*

→ Create a data governance roadmap that includes continuous improvement and adaptation to changing business needs**

PREREQUISITES:

→ Understanding of data management practices, including data classification, storage, and retrieval*

POTENTIAL LEARNERS

→ Data Curators

→ Practitioners

→ Risk, Compliance and Data Leaders

**6- and 8-hour courses only*
***8-hour course only*

Establishing RAI Governance and Data Ethics

2–12 HOURS

This course is best for professionals who need to understand how to deploy AI in a way that maximizes positive impact, mitigates risks, and addresses the latest regulations. The course takes a strategic (rather than engineering) perspective, situating AI development in its organizational context and empowering learners to envision and implement Responsible AI (RAI) in their own workplace. By the end of the course, learners will understand what RAI means and have conceptual fluency to continue learning about the topic and follow this continually evolving field. In addition, learners will have the option to outline or even draft their own RAI blueprint for their organization.

KEY SKILLS COVERED:

- → Responsible AI governance, from planning and data collection to deployment
- → AI ethics and critical thinking about technology
- → Regulatory compliance and AI

LEARNER OUTCOMES INCLUDE:

- → Understand recent applications of AI, including their inherent risks and capabilities
- → Describe popular frameworks for RAI and example regulations
- → Explain RAI considerations at each stage of the product life cycle, from ethical data practices to model deployment
- → Identify major strategies for shaping an emerging technology, at an organizational and societal level
- → Describe major RAI tools, technical metrics, and dashboards
- → Draft an RAI blueprint for your organization

POTENTIAL LEARNERS

- → AI Governance Specialists
- → Analytics/Data Science Leaders
- → Compliance Officers
- → Data Ethics Consultants
- → Data Governance Specialists
- → Executive Leadership

Essential AI for Leaders

1.5–2 HOURS

This course introduces executives to essential artificial intelligence (AI) and machine learning (ML) concepts and explores the practical applications of this technology. The course not only provides insight and case study discussion around current AI innovation, but also addresses ethical considerations, regulatory challenges, and potential risks, while introducing an evaluation framework for AI opportunities. Ultimately, the learning will position participants to contribute to AI strategy initiatives that align with company business priorities.

KEY TOPICS COVERED:

→ Responsible AI governance, from planning and data collection to deployment

→ AI ethics and critical thinking about technology

→ Regulatory compliance and AI

LEARNER OUTCOMES INCLUDE:

→ Develop a shared understanding of AI and its potential impact

→ Evaluate industry-specific AI innovations and current applications, including benefits and challenges.

→ Identify key ethical considerations and potential risks inherent in AI adoption, along with mitigation strategies.

→ Introduce a framework for AI opportunity evaluation.

POTENTIAL LEARNERS

→ Senior Executives or Organization Leaders

→ Functional or Departmental Leaders

→ Strategy or Innovation Leaders

→ Technology Leaders

Evaluating AI Opportunities

2 HOURS

This course is best for organizational or team leaders who want to build confidence assessing AI project opportunities. Participants will bring 3-4 potential AI initiatives and systematically evaluate them against key criteria, including strategic alignment, value proposition, data needs, talent requirements, risks, and effort. Through expert-led discussions and small-group exercises, participants will refine their business cases and gain a framework for ranking opportunities based on impact and feasibility. By the end of the session, leaders will be equipped to make informed decisions prioritizing AI investments that drive meaningful business outcomes.

LEARNER OUTCOMES INCLUDE:

→ Evaluate and prioritize high-leverage AI opportunities based on business need

→ Assess the potential risks of AI solutions and identify approaches for mitigation

PREREQUISITES:

→ Knowledge of the organization's business context and strategic priorities

→ General knowledge of the organization's data and digital transformation initiatives

POTENTIAL LEARNERS

→ Senior Executives or Organization Leaders

→ Functional or Departmental Leaders

→ Strategy or Innovation Leaders

→ Technology Leaders

Foundations in AI

2 HOURS

This non-technical AI course introduces employees to essential AI and Machine Learning (ML) concepts and explores their practical applications in business settings. Designed for those new to AI or looking to enhance their knowledge, this course helps learners understand and apply core AI/ML concepts, including how to evaluate and implement AI solutions effectively within the workplace. By the end of this course, learners will have a solid foundation in AI fundamentals, preparing them to contribute to AI initiatives.

KEY TOPICS COVERED:

- → Machine Learning
- → Data Governance
- → Responsible AI
- → AI/Machine Learning Product Life-cycle

LEARNER OUTCOMES INCLUDE:

- → Define Machine Learning and AI key terminology and concepts
- → Discuss and evaluate current AI solutions in your industry
- → Explain what is required to gather and prepare data for AI and ML
- → Explain key Ethical Considerations in AI
- → Summarize each step in the AI/ML development process
- → Identify and discuss the potential risks of AI and possible approaches for mitigation

PREREQUISITES:

- → Knowledge of descriptive statistics
- → Experience with Exploratory Data Analysis (EDA)

POTENTIAL LEARNERS

- → Administrative staff
- → Analysts
- → Data Ethics Officers
- → Operations Managers
- → Product Managers
- → Project Managers
- → Strategic Planners

Foundations in Python for Scaling Data Analysis

9–12 HOURS **T**

This course is best for data practitioners seeking to enhance their efficiency and expand their technical capabilities by using Python for data preprocessing, statistical analysis, and data visualization. It offers an exploration of Python's powerful data analysis libraries. Through hands-on exercises and real-world examples, participants will learn to manipulate, analyze, and visualize complex datasets effectively. These foundational skills will unlock access to cutting-edge technical tools within the Python ecosystem (including AI & ML libraries) and increase productivity on both routine and complex analyses.

KEY SKILLS COVERED:

- → Data Analysis
- → Data Visualization
- → Jupyter Notebooks
- → Python Programming

LEARNER OUTCOMES INCLUDE:

- → Write basic Python EDA notebooks using control structures
- → Implement an exploratory data analysis in Python on company-provided data*
- → Perform basic data cleaning techniques in Python
- → Manipulate date data types in Python for time series analyses
- → Filter, sort, transform, and summarize data with Python and the pandas library
- → Create exploratory data visualizations using the Matplotlib and seaborn libraries

PREREQUISITES:

- → Knowledge of descriptive statistics
- → Experience with Exploratory Data Analysis (EDA)

POTENTIAL LEARNERS

- → Analysts
- → Software Engineers
- → Statisticians

We require company-provided datasets for the learners to explore during the course so that they can leverage their existing expertise while learning the new analytics tools. These can be actual company data (preferred) or anonymized/randomized alternatives. Our Solutions Architects will work with your data specialists to source appropriate materials 4 weeks before the course starts.

Foundations in R for Scaling Data Analysis

9–12 HOURS **T**

This course is best for data practitioners seeking to enhance their efficiency and expand their technical capabilities by using R for data preprocessing, statistical analysis, and data visualization. It offers an exploration of R's powerful data analysis packages. Through hands-on exercises and real-world examples, participants will learn to manipulate, analyze, and visualize complex datasets effectively. These foundational skills will unlock access to cutting-edge technical tools within the R ecosystem and increase productivity on both routine and complex analyses.

KEY SKILLS COVERED:

- → Data Analysis
- → Data Visualization
- → R Markdown
- → R Programming

LEARNER OUTCOMES INCLUDE:

- → Implement an Exploratory Data Analysis in R on company-provided data*
- → Perform basic data cleaning techniques in R
- → Manipulate date data types in R for time series analyses
- → Filter, sort, transform, and summarize data with R and the tidyverse packages
- → Create exploratory data visualizations using the ggplot2 package

PREREQUISITES:

- → Knowledge of basic descriptive statistics
- → Experience with Exploratory Data Analysis

POTENTIAL LEARNERS

- → Analysts
- → Data Scientists
- → Data Visualization Specialists

We require company-provided datasets for the learners to explore during the course so that they can leverage their existing expertise while learning the new analytics tools. These can be actual company data (preferred) or anonymized/randomized alternatives. Our Solutions Architects will work with your data specialists to source appropriate materials 4 weeks before the course starts.

Foundations in Responsible AI Architectures: Tools, Metrics, and Audits

2–4 HOURS **T**

This technical AI course is best for learners who are closely involved in the development of AI models, like ML/AI engineers and data engineers, as well as technically-fluent product managers, AI governance officers, or similar roles. In reviewing the ML development lifecycle, the potential causes and types of bias, and widely-used metrics, learners will gain a high-level technical understanding of responsible AI.

KEY SKILLS COVERED:

→ Visualizing RAI in the ML lifecycle

→ Basic competence with some widely-used methods of bias and fairness assessment

LEARNER OUTCOMES INCLUDE:

→ Place RAI in the ML development lifecycle, enabling ethics-by-design

→ List different types of biases that can occur in ML lifecycle in order to proactively address and mitigate them

→ Describe and deploy technical approaches to assessing fairness and bias

PREREQUISITES:

Experience in AI engineering or research

POTENTIAL LEARNERS

→ AI Researchers

→ Data Engineers

→ Data Scientists

→ ML/AI Engineers

→ Technical Project Managers

Going Deeper with AI Tools: Advanced Prompting Techniques

2-4 HOURS

This course is best for professionals who are experienced with using generative AI chatbots for productivity and want to learn more advanced prompting techniques. The goal of the course is to provide learners with the skills they need to create more sophisticated prompts and leverage advanced features like few-shot learning and project-based environments to maximize the value of AI tools in their work.

LEARNER OUTCOMES INCLUDE:

→ Explain the difference between system and user prompts

→ Create persistent instructions that can be used across conversations or projects

→ Implement few-shot learning

→ Extract information from pdfs

→ Create one of the following, depending on your tool access:
1. A notebook project (e.g. Copilot Notebooks, Claude Projects, Gemini NotebookLM)
2. A no-code agent (e.g. Copilot Studio, Gemini Enterprise)

PREREQUISITES:

→ Completion of Maximizing Productivity with Generative AI or experience using GenAI chatbots (e.g., Copilot, ChatGPT) and understanding of basic prompt engineering best practices

POTENTIAL LEARNERS

→ Product Managers

→ Marketing Professionals

→ Operations Managers

→ Knowledge Workers

→ Business Analysts

Identifying AI Opportunities

2 HOURS

This workshop is best for organizational or team leaders who want to explore potential AI project opportunities. Participants will engage in collaborative brainstorming sessions to identify potential AI initiatives by considering current business strengths and opportunities and the aligned business challenges AI could solve. Through guided discussions and interactive exercises, leaders will generate and refine these ideas. By the end of the workshop, participants will have a curated list of AI project opportunities, ready for further evaluation.

LEARNER OUTCOMES INCLUDE:

- → Envision potential AI projects for your business and excite your team about their value
- → Brainstorm data and ethical considerations of an identified AI opportunity

PREREQUISITES:

- → Knowledge of the organization's business context and strategic priorities
- → General knowledge of the organization's data and digital transformation initiatives

POTENTIAL LEARNERS

- → Senior Executives or Organization Leaders
- → Functional or Departmental Leaders
- → Strategy or Innovation Leaders
- → Technology Leaders

Leveraging AI and Machine Learning at Work

2–12 HOURS

This non-technical AI course is best for leaders and product managers who want to learn about leveraging AI and Machine Learning in the workplace. The shorter courses (2-4 hours) provide high-level introductions to common terms, deployment life cycles, and ethical considerations when implementing an AI solution. The longer courses (8-12 hours) expand on each topic, empowering learners to align their business strategy with specific AI solutions. These longer courses also explore generative AI tools for day-to-day productivity gains. The goal of the course is to help learners understand the capabilities of modern AI solutions and their potential in the organization.

KEY TOPICS COVERED:

- → Data Science
- → AI/Machine Learning workflow
- → Responsible AI

UPON COMPLETION OF THE COURSE, LEARNER OUTCOMES INCLUDE:

- → Explain the types of machine learning
- → Explain common machine learning algorithms and their pros and cons for different applications
- → Summarize each step in the machine learning workflow
- → Identify and discuss the potential risks of AI and possible approaches for mitigation

POTENTIAL LEARNERS

- → Analysts
- → Product Managers
- → Operations Managers
- → Software Developers

Maximizing Productivity with Generative AI

2 HOURS

This workshop is ideal for professionals who want to adopt the latest tech advancements to streamline their day-to-day and create time for more complex work. The session covers essential AI fundamentals, the concept of prompt engineering, and the basics of generative AI inputs and outputs. Participants will learn how to effectively use chat-based Large Language Models (e.g. ChatGPT, Copilot, Gemini or Claude) to enhance productivity and understand the potential risks associated with these systems. The interactive workshop incorporates relevant business scenarios, allowing learners to immediately apply best practices and discuss results with peers.

KEY SKILLS COVERED:

→ Prompt Engineering

LEARNER OUTCOMES INCLUDE:

→ Understand and review the fundamentals of LLMs, including the relationship of inputs to outputs

→ Describe and apply prompt engineering best practices to leverage generative AI

→ Describe and mitigate the potential risks of generative AI, including hallucinations

→ Generate possible ways to immediately implement generative AI into daily workflow

POTENTIAL LEARNERS

→ Administrative and Operations Staff

→ Analysts

→ Customer Support Representatives

→ Product/Project Managers

→ HR Business Managers

→ Marketing and Sales Specialists

→ Organizational/Team Leaders

Maximizing Productivity with GitHub Copilot

2 HOURS **T**

This workshop is ideal for technical practitioners looking to enhance productivity with generative AI tools, particularly how to leverage GitHub Copilot for prompt engineering within coding environments like Visual Studio. Participants explore various modalities of GitHub Copilot, including ghost text, inline prompts, and the chat panel. The workshop also addresses common risks and mitigation strategies. Using business-relevant scenarios, learners can immediately apply best practices and discuss their results with peers.

KEY SKILLS COVERED:

→ Prompt Engineering

→ Pair-programming (with an AI partner)

LEARNER OUTCOMES INCLUDE:

→ Summarize the fundamentals of LLMs, including the relationship of inputs to outputs with different GitHub Copilot modalities (ghost text, inline prompt, and chat panel)

→ Construct documentation, unit tests, or a wrapper function with GitHub Copilot

→ Describe and mitigate the potential risks of generative AI, including hallucinations

→ Generate possible ways to implement GitHub Copilot in the daily workflow

PREREQUISITES:

→ Familiarity with a Copilot-supported language (Python, JavaScript, TypeScript, Ruby, Go, C#, or C++)[1]

→ GitHub account with an active GitHub Copilot subscription (ideally at the Business or Enterprise level)

→ (Recommended) Experience with a Copilot-supported coding environment (VS Code, Visual Studio, or JetBrains IDEs)[1]

[1] GitHub Docs. Getting started with GitHub Copilot. Prerequisites & Seeing your first suggestion Sections

POTENTIAL LEARNERS

→ Analysts

→ Data Scientists

→ DevOps Engineers

→ Software Engineers

Setting Your AI Strategy

4 HOURS

This course is best for organizational or team leaders looking to understand and strategically respond to the impact of AI. In the first session, participants will gain a foundational understanding of AI, its terminology, data requirements, ethical risks, and key concepts – enabling them to apply this knowledge strategically. The second session features a facilitated workshop to initiate the setting of a comprehensive AI strategy for your business.

KEY SKILLS COVERED:

→ Data Governance

→ AI/Machine Learning Product Life-cycle

→ Responsible AI

LEARNER OUTCOMES INCLUDE:

→ Envision potential AI projects for your business and excite your team about their value

→ Assess the potential risks of AI solutions and identify approaches for mitigation

→ Brainstorm data and ethical considerations of an identified AI opportunity

→ Apply a framework to assess AI talent readiness and learning pathways

→ Plan initial action steps to drive implementation around an AI initiative or organizational strategy

POTENTIAL LEARNERS

→ Business Strategy Managers

→ Innovation Managers

→ Organizational/Departmental Leaders

Updates in AI

1-2 HOURS

This seminar is best for professionals who want to stay up-to-date with the latest advancements in AI to maintain a competitive edge. By focusing on the most recent AI developments, participants gain insight to how cutting-edge AI techniques are transforming business. Recent ethical considerations and regulatory challenges associated with AI implementation will also be discussed, with the goal of helping business leaders navigate the evolving AI landscape.

KEY TOPICS COVERED:

→ Recent case studies of AI in your industry

→ Recent technical advancements relevant to AI applications in your industry

→ Recent ethical, regulatory, and risk considerations in AI deployment

LEARNER OUTCOMES INCLUDE:

→ Understand and explain the latest AI innovations in your industry

→ Evaluate the impact of earlier AI innovations, including benefits and challenges

→ Recognize evolving ethical considerations, regulatory requirements, and compliance strategies related to AI deployment

PREREQUISITES:

→ Participants have a baseline understanding of artificial intelligence and how it can or has driven meaningful impact for your organization.

POTENTIAL LEARNERS

→ Senior Executives or Organization Leaders

→ Functional or Departmental Leaders

→ Strategy or Innovation Leaders

→ Technology Leaders

Understanding and Leveraging Large Language Models

4 HOURS **T**

This course is best for software engineers, data engineers, IT professionals, and data analysts who want to leverage large language models for practical enterprise applications. The course covers foundational LLM theory and offers hands-on experience leveraging no-code commercial LLM tools and using LLMs as coding assistants.

KEY SKILLS COVERED:

→ AI fundamentals and application

→ Python Programming

LEARNER OUTCOMES INCLUDE:

→ Explain the basics of how LLMs are trained

→ Explain transformers and the attention mechanism

→ Apply no-code prompt engineering strategies

→ Incorporate GenAI tools into test-driven software development

→ Compare fine-tuning and RAG and select the appropriate method for specific applications

→ Explain how AI agents work, including multi agent systems and agentic workflows

→ Determine when it is best to use traditional analytics, traditional ML, LLMs, or AI agents

PREREQUISITES:

→ Python programming experience or completion of Foundations in Python for Scaling Data Analysis

POTENTIAL LEARNERS

→ Technical Leaders

→ Software Engineers

→ Data Scientists

→ Data Analysts

→ Data Engineers

For the most up-to-date information*, visit our website.

*As of December 15, 2025

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