

Applied AI & Machine Learning- Design

Course Summary

Description

This one-of-a-kind course focuses on the most chronic failings of the vast majority of advanced analytics implementations: comprehensive project assessment, design, and planning. The analytic professionals who apply the strategic principles in this course will obtain the rare analytic leadership skills to overcome their organization's ongoing analytic challenges and stand out in this competitive practice.

Industry surveys underscore that most advanced analytics projects fail or fall short of their objectives. Project failure is almost never due to a model's inability to uncover new insights or find patterns in data. By investing more heavily in tool and algorithm training, most organizations are working on the wrong end of the problem. Instead of preparing a goal-driven plan and tailored project design, they are leading with a technology focus. Most of today's data scientists are skilled with trees, but lost in the forest.

And it's not the fault of today's practitioners. Commercial and academic courseware maintains a focus on analytic methods, software, and tactics. They focus on optimizing for technical metrics as opposed to goal-driven performance. Most analytic professionals launch directly into data and software before assessing strategic issues that cause otherwise valid models to die on the vine at implementation time.

Beyond lecture and demonstration, this course will actively lead you through structured and comprehensive analytic project design exercises that you can take home and apply. Those who stay for the full series will reference the completed design as the blueprints for full strategic implementation.

The developers of this course have been actively involved with the design, implementation, and deployment of real-world predictive modeling solutions. Their clients have been richly rewarded by recognizing doomed projects in advance and deriving real value from successful deployments.

There simply is no other vendor-neutral event in the marketplace that focuses exclusively on analytic project assessment, planning and design – let alone integrating seamlessly into an overarching series for end-to-end process implementation. The skills learned in this course are highly valued in the market.

Objectives

After taking this course, students will be able to:

- Plan and manage your predictive modeling projects effectively from the start
- Identify, qualify, and prioritize actionable analytic opportunities
- Understand the purpose, function, and impact of an analytic process model
- Outline the implementation tasks of the Assess and Plan Phases of the Modeling Practice Framework
- Define a project roadmap with modeling objectives that lead to measurable project gains
- Qualify the downstream organizational and environmental requirements for model deployment and operation
- Recognize dead-end approaches in advance that lead to wasted resources on doomed approaches
- Broaden experience through active problem-solving and guided discussion in realistic project scenarios
- Certify data resources and plan for an efficient analytic sandbox
- Engage with confidence among your developers, analysts, and consultants
- Develop the rare analytic leadership traits to design and oversee actionable analytics projects
- Leave with resources, contacts, and plans to substantially reduce your project preparation time, costs and risks

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Course Summary (cont'd)

Topics

- Core Concepts
- Terms Used in Today's Analytics Environment
- Assess Phase
- Plan Phase
- Wrap-up and Next Steps

Audience

This course is designed for:

- IT executives and Big Data directors: CIOs, CAOs, CTOs, stakeholders, functional officers, technical directors, and project managers who desire to extract and apply the true value hidden within their deluge of data
- Line-of-business executives and functional managers: risk managers, CRM managers, public sector directors, business forecasters, inventory flow analysts, financial forecasters, medical diagnostic analysts, fraud and loss prevention managers, and eCommerce company executives
- Data scientists: Who recognize the importance of complementing their tactical proficiency with a strategic planning and design approach to advanced analytics
- Technology planners: Who survey emerging technologies in order to prioritize corporate investment
- Consultants: Whose competitive environment is intensifying and whose success requires competency with data mining and related emerging information technologies

Prerequisites

Registrants will be required to view a three-hour asynchronous "Core Concepts" orientation prior to attending this event. Access details for the Core Concepts prerequisite will be shared with participants prior to the start of the course. Prior education or experience in data analytics or statistics is helpful, but not required.

Duration

One day

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Course Outline

- I. Core Concepts**
 - A. Prerequisite Three-Hour Preparatory Orientation
 - B. View the full Core Concepts Topic Outline
- II. Terms Used in Today's Analytics Environment**
 - A. Big Data Analytics
 - B. Predictive Analytics
 - C. Data Science
 - D. Business Intelligence
 - E. Data Analysis
 - F. Machine Learning
 - G. Dashboards
 - H. Applied Statistics
 - I. Prescriptive Analytics
 - J. Predictive Modeling
 - K. Internet of Things (IoT)
 - L. The Current Landscape of Analytics Software
- III. Assess Phase**
 - A. Assemble Team
 - B. Leadership, Analysts, Subject Experts, Data Support, Stakeholders, etc
 - C. Determine Whether External Talent is Needed
 - 1. Examine Culture & Mindset
 - 2. List Candidate Projects
 - D. Place Projects on a Benefits / Challenges Quadrant Plot
 - E. Guided Discussion Breakout Session
 - 1. Define Performance Benchmarks
 - 2. Identify Data Sources
 - 3. Itemize Existing Analytic Resources
 - 4. Describe Operational Environments
 - 5. Initial Report of Overall Practice Readiness
 - F. What Should an Assess Phase Report Contain?
 - G. Exercise Breakout Session
- IV. Plan Phase**
 - A. Pull & Recon Data
 - B. Explore Data & Verify Quality
 - C. Do We Have Enough Data?
 - D. Which Data are Relevant?
 - E. Make a First Look at Data Quality
 - F. Exercise Breakout Session
 - 1. Design Analytic Sandbox
 - 2. Qualify Team
 - 3. Qualify Tools
 - 4. Define Operational Environment(s)
 - 5. Establish Performance Benchmarks & Targets
 - G. What are the current metrics (KPIs)?
 - H. What is the Role of Technical Metrics vs. KPIs?
 - I. Benchmark Demonstration
 - 1. Consider Deployment Options
 - 2. Prioritize Viable Projects
- V. Wrap-up and Next Steps**
 - A. Supplementary Materials and Resources
 - B. Conferences and Communities
 - C. Get Started on a Project!
 - D. Options for Implementation Oversight and Collaborative Development