skillsoft global knowledge™

ARTIFICIAL INTELLIGENCE IMPLEMENTATION BOOT CAMP

Course Code: 100321

Learn how to contribute to the adoption of machine learning and AI features in your business.

Learn to separate reality from myth, and filter real-world applications from business media buzz. This class is a fast-paced, intensive literacy class which leaves you quickly equipped with a broad range of management tools to incorporate machine intelligence into your own business strategy. “AI” is a buzzword, but the actual technology behind machine learning and other machine intelligence services is very real. Although there is broad consensus among major management analysts that AI and machine learning are immediate disruptors to most technology services, there is still very little practical adoption when it comes to integrating these features.

The difficulties of adoption come with good reason. The data science and application engineering skills required to execute on a machine intelligence strategy and demonstrate concrete value from it are still the domain of only a few. But with tools such as Google’s open-source TensorFlow and others coming online all the time, suddenly much of the doctoral-level science of AI is already built into services that are more accessible to development teams. Even small wins on an AI strategy can move the needle, and competitive position is being grabbed by those that can execute.

This class teaches you how to navigate the machine intelligence landscape and build actual use cases for your own scenarios. You’ll learn what types of teams, roles, platforms, and tools are required for a practical adoption strategy. You’ll learn to profile good candidate projects for AI features and spot business opportunities where AI could be useful. Group exercises allow you to exchange ideas with peers and work together to arrive at your own creative examples. The level of detail covered in this workshop leaves you thoroughly informed about the state of the art in AI and machine learning, and ready to face the future on your own teams.

What You'll Learn

- Able to differentiate fact from fiction on AI and machine learning topics
- Ready to have intelligent conversations about the state of AI and ML

technologies
- Exposed to real-world use cases where machine learning is working well
- Ready to navigate tool and technology stacks associated with AI and ML, and communicate with your engineering team members about requirements, needs, talent and costs
- Designing or managing projects and programs which may incorporate aspects of AI and ML
- Access to answers to your questions from a senior technical expert in class
- Informed about what AI and machine learning is well suited to do, vs. what it does not do well
- Literate and informed about the scientific and mathematical components of AI and machine learning
- Back at work with a thorough understanding of the different types of machine learning
- Able to translate technical constraints and business concerns among different groups of stakeholders who may not understand the context or priorities of other parties
- Ready to build and lead teams who bring together the requisite skill sets needed for effective AI and machine learning implementation

Who Needs to Attend

- Anyone in an IT Leadership role
- CIOs / CTOs
- Product Owners and Managers
- Developers and Application Team leads
- Project and Program Managers
- DevOps & Automation Engineers
- Software Managers and Team Leads
- IT Operations Staff

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CLASSROOM LIVE	$995 USD	1 Day

Classroom Live Outline

Introduction

1. Working definitions: AI, Machine Learning, Deep Learning, Data Science & Big Data
2. State of AI: summarizing major analysts' statistics & predictions
3. Summarizing AI misinformation
4. Effects on the job market
5. Today's AI use cases
    1. Where it works well
    2. Where it doesn't work well
6. What do high profile users have in common?
7. Addressing legitimate concerns & risks

Case study: We will introduce the class to three real-world use cases – one in finance, one in health science, and one in general operations. In small groups, you will discuss implications of the cases and see if you and your peers can spot any parallel opportunities in your own business.

The Big Data Prerequisite

- Evaluating your big data practice
- State of tools – understanding intelligent big data stacks
    - Visualization and Analytics
    - Computing
    - Storage
    - Distribution and Data Warehousing

- Strategically restructuring enterprise data architecture for AI
- Unifying data engineering practices
- Datasets as learning data
- Defeating Bias in your Datasets
- Optimizing Information Analysis
- Utilizing the IoT to amass a large amount of data

Implementing Machine Learning

1. Examine pillars of a practicing AI team
    1. Business case
    2. Domain expertise
    3. Data science
    4. Algorithms
    5. Application integration
2. Bettering Machine Learning Model Management
3. State of tools – understanding intelligent machine learning stacks
4. Machine Learning Methods and Algorithms
    1. Decision Trees
    2. Support Vector Machines
    3. Regression
    4. Naïve Bayes Classification
    5. Hidden Markov Models
    6. Random Forest
    7. Recurrent Neural Networks
    8. Convolutional Neural Networks
5. Developing Validation Sets
6. Developing Training Sets
7. Accelerating Training
8. Encoding Domain Expertise in Machine Learning
9. Automating Data Science
10. Deep Learning

Case study: TensorFlow – We will take a look at Google's TensorFlow as a tool for integrating machine learning features. We'll come away from the exercise with an understanding of the programming skills needed to leverage TensorFlow and the impacts of normal application workflow.

Creating Concrete Value

1. Opportunities for automation
2. Understanding automation vs. job displacement vs. job creation
3. Finding hidden opportunities through improved forecasting
4. Production and operations

5. Adding AI to the Supply Chain
6. Marketing and Sales Applications
    1. Predict Customer Behavior
    2. Target Customers Efficiently
    3. Manage Leads
    4. AI-powered content creation
7. Enhancing UX and UI
8. Next-Generation Workforce Management
9. Explaining Results

Case Study: Scoring the criteria for three potential applications. In groups, we'll evaluate application use cases for machine learning: Medical imaging, electronic medical records, and genomics. We'll grade each use case based on a scorecard for the following:

1. Quantity of data
2. Quality of data
3. ML techniques

Machine intelligence as part of the customer experience

1. IoT and the role of machine learning
2. Projects based on customer & user needs
3. Handling customer inquiries with AI
4. Creating empathy-driven customer facing actions
5. Narrowing down intent
6. AI as part of your channel strategy

Machine Intelligence & Cybersecurity

1. How can ML help with security?
    1. Advance cyber security analytics
    2. Developing defensive strategies
    3. Automating repetitive security tasks
    4. Close zero-day vulnerabilities
2. How are attackers leveraging ML and AI?
3. Building up trust towards automated security decisions and actions
4. Automated application monitoring as a security layer
5. Identifying Vulnerabilities
6. Automating Red Team/Blue Team Testing Scenarios
7. Modeling AI after previous security breaches
8. Automating and streamlining Incident Responses
9. How to use deep learning AI to detect and prevent malware and APTs
10. Using natural language processing
11. Fraud detection

12. Reducing compliance testing & cost

Filling the Internal Capability Gap

1. Assessing your technological and business processes
2. Building your AI and machine learning toolchain
3. Hiring the right talent
4. Developing talent
5. How to make AI more accessible to people who are not data scientists
6. Launching pilot projects

Conclusion and Charting Your Course

1. Review
2. Charting Your Course
3. Establishing a timeline
4. Open Discussion

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VIRTUAL CLASSROOM LIVE	$995 USD	1 Day

Virtual Classroom Live Outline

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Nov 17 - 17, 2025 | 10:00 AM - 6:00 PM EST

Dec 1 - 1, 2025 | 8:30 AM - 4:30 PM EST

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PRIVATE GROUP TRAINING	1 Day

Visit us at www.globalknowledge.com or call us at 1-866-716-6688.

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