



AI-Driven Decision Making and Organizational Value Creation

Course Description:

This course introduces participants to how organizations use artificial intelligence (AI) and data analytics to improve decision making and create organizational value. Through practical business and public-sector examples, participants will explore how AI can support prediction, pattern recognition, and evidence-based decision making. Foundational machine learning approaches covered include Classification and Regression Trees (CART) and Artificial Neural Networks (ANNs), with attention to how AI models generate insights, identify relationships in data, and support predictive analytics and organizational decision making. The course also introduces Large Language Models (LLMs) and generative AI tools such as ChatGPT, including how modern AI systems generate natural language responses, how prompts influence AI outputs, and how organizations increasingly use LLMs for summarization, communication support, and decision assistance. Important limitations and concerns associated with generative AI are also examined, including hallucinations, bias, reliability, and ethical considerations.

By the end of the course, participants will understand how AI technologies can support evidence-based decision making, reduce uncertainty, improve organizational effectiveness, and create value across business and public-sector environment.

Learning Objectives:

- Explain how AI and machine learning support organizational decision making and value creation.
- Distinguish between interpretable AI models such as CART and predictive AI models such as Neural Networks.
- Identify how data can be structured and prepared for machine learning applications.
- Evaluate predictive model performance using measures such as classification accuracy, sensitivity, specificity, and ROC curves.
- Interpret AI-generated insights and assess their implications for business and policy decisions.



Who Should Attend:

- Business professionals seeking to understand how AI can improve decision making.
- Managers and executives responsible for strategy, operations, analytics, or digital transformation initiatives.
- Government and public-sector professionals interested in evidence-based policy and predictive analytics.
- Analysts and professionals seeking an accessible introduction to machine learning concepts and applications.
- Anyone interested in understanding how AI models generate business value from data.

Instructor(s):

Dr. Norman Johnson
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