

## Artificial Intelligence and Machine Learning Fundamentals

Machine learning and neural networks are pillars on which you can build intelligent applications. Artificial Intelligence and Machine Learning Fundamentals begins by introducing you to Python and discussing AI search algorithms. You will cover in-depth mathematical topics, such as regression and classification, illustrated by Python examples.

As you make your way through the book, you will progress to advanced AI techniques and concepts, and work on real-life datasets to form decision trees and clusters. You will be introduced to neural networks, a powerful tool based on Moore's law.

### What You Will Learn

Understand the importance, principles, and fields of AI

Implement basic artificial intelligence concepts with Python

Apply regression and classification concepts to real-world problems

Perform predictive analysis using decision trees and random forests

Carry out clustering using the k-means and mean shift algorithms

Understand the fundamentals of deep learning via practical examples

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