


CS50's Introduction to Artificial Intelligence with Python

OpenCourseWare

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Ready Player 50
 Zoom Meetings

- 0. Search
- 1. Knowledge
- 2. Uncertainty
- 3. Optimization
- 4. Learning
- 5. Neural Networks
- 6. Language

Academic Honesty
CS50 Certificate

Welcome

This course explores the concepts and algorithms at the foundation of modern artificial intelligence, diving into the ideas that give rise to technologies like game-playing engines, handwriting recognition, and machine translation. Through hands-on projects, students gain exposure to the theory behind graph search algorithms, classification, optimization, reinforcement learning, and other topics in artificial intelligence and machine learning as they incorporate them into their own Python programs. By course's end, students emerge with experience in libraries for machine learning as well as knowledge of artificial intelligence principles that enable them to design intelligent systems of their own.

Prerequisites

[CS50x](#) or at least one year of experience with Python.

► [Watch an introduction](#)

How to Take this Course

Even if you are not a student at Harvard, you are welcome to "take" this course for free via this OpenCourseWare by working your way through the course's seven [weeks](#) of material. If you'd like to submit the course's seven [projects](#) for feedback, be sure to [create an edX account](#), if you haven't already. Ask questions along the way via any of the course's [communities](#)!

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How to Teach this Course

If you are a teacher, you are welcome to adopt or adapt these materials for your own course, per the [license](#).