APPLIED MACHINE LEARNING AND AI CERTIFICATE

Program Description

With the rise and acceleration of AI, machine learning (ML) has become an increasingly critical tool for the development of computer systems with the ability to learn and discover patterns in data. Gaining a foundation in the concepts and practices of ML can set you up to understand new advancements and grow your career in this field.

In this certificate program, you will gain the skills that will enable you to build ML solutions in real-world conditions through an ethical and inclusive lens. You will discover the machine learning lifecycle, explore common machine learning packages, and work with industry-relevant tools to analyze large data sets. By the end of the program, you will have hands-on practice and experience building machine learning workflows and optimizing ML models from scratch to solve problems or achieve goals.

In order to be successful in this program, students must be familiar with the programming language Python.

The courses in this certificate program are required to be completed in the order that they appear.

Key Takeaways

- Understand the machine learning lifecycle and explore common machine learning packages
- Perform exploratory analysis to prepare data for machine learning applications
- Train and optimize two popular supervised learning algorithms: k-nearest neighbors (KNN) and decision trees (DT)
- Discover the mechanics of linear models and implement a common linear model from scratch
- Define the model evaluation metrics for specific applications by selecting the appropriate model candidates and hyperparameters for testing
- Examine the principle of ensemble models and how to train and tune a model using models as features
- Perform NLP sentiment analysis and implement deep learning models
- Identify performance issues and find solutions to fix and improve them

What You'll Earn

- Applied Machine Learning and AI Certificate from Cornell Tech
- 140 Professional Development Hours (14 CEUs)

Who Should Enroll

- Data scientists and data analysts
- Programmers, developers, and software engineers
- Statisticians
- Product managers
- Entrepreneurs
- Working professionals seeking to upskill or career change

Total Investment

- 3.5 months with 8-10 hours of study per week

How To Enroll

For more information on how to enroll, please visit Applied Machine Learning and AI Certificate (https://ecornell.cornell.edu/certificates/technology/applied-machine-learning-and-ai/).

Courses

Code	Title	Hours
eCornell CTECH461	Machine Learning Foundations	0
eCornell CTECH462	Managing Data in Machine Learning	0
eCornell CTECH463	Training Common Machine Learning Models	0
eCornell CTECH464	Training Linear Models	0
eCornell CTECH465	Evaluating and Improving Your Model	0
eCornell CTECH466	Improving Performance With Ensemble Methods	0
eCornell CTECH467	Using Machine Learning for Text Analysis	0