Building Recommendation Systems with Python (TTAI2360)

Category: AI, Data & Analytics | **Vendor:** Trivera Tech

Duration: 24.00 hours (3 days) **19.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

Recommendation systems are at the heart of almost every internet business today; from Facebook to Net ix to Amazon. Providing good recommendations, whether its friends, movies, or groceries, goes a long way in defining user experience and enticing your customers to use your platform.This course shows you how to do just that. You will learn about the different kinds of recommenders used in the industry and see how to build them from scratch using Python. No need to wade through tons of machine learning theory you will get started with building and learning about recommenders as quickly as possible. In this course, you will build an IMDB Top 250 clone, a content-based engine that works on movie metadata. You will also use collaborative filters to make use of customer behavior data, and a Hybrid Recommender that incorporates content based and collaborative filtering techniques. Students will learn to build industry-standard recommender systems, leveraging basic Python syntax skills. This is an applied course, so machine learning theory is only used to highlight how to build recommenders in this course.

About This Course

Recommendation systems are at the heart of almost every internet business today; from Facebook to Net ix to Amazon. Providing good recommendations, whether its friends, movies, or groceries, goes a long way in defining user experience and enticing your customers to use your platform.This course shows you how to do just that. You will learn about the different kinds of recommenders used in the industry and see how to build them from scratch using Python. No need to wade through tons of machine learning theory you will get started with building and learning about recommenders as quickly as possible. In this course, you will build an IMDB Top 250 clone, a content-based engine that works on movie metadata. You will also use collaborative filters to make use of customer behavior data, and a Hybrid Recommender that incorporates content based and collaborative filtering techniques. Students will learn to build industry-standard recommender systems, leveraging basic Python syntax skills. This is an applied course, so machine learning theory is only used to highlight how to build recommenders in this course.

Who Should Attend

This course is geared for Python experienced developers, analysts or others who are intending to learn the tools and techniques required in building various kinds of powerful recommendation systems (collaborative, knowledge and content based) and deploying them to the web.

Prerequisites & Entry Requirements

General Prerequisites:

This course is geared for Python experienced developers, analysts or others who are intending to learn the tools and techniques required in building various kinds of powerful recommendation systems (collaborative, knowledge and content based) and deploying them to the web.

Attending students should have the following incoming skills:

-Basic to Intermediate IT Skills.

-Basic Python syntax skills are recommended. Attendees without a programming background like Python may view labs as follow along exercises or team with others to complete them.

-Good foundational mathematics or logic skills

-Basic Linux skills, including familiarity with command-line options such as ls, cd, cp, and su

Learning Outcomes

Upon successful completion of this course, participants will be able to:

This skills-focused combines engaging lecture, demos, group activities and discussions with machine-based student labs and exercises.. Our engaging instructors and mentors are highly-experienced practitioners who bring years of current, modern 'on-the-job' modern applied datascience, AI and machine learning experience into every classroom and hands-on project. Working in a hands-on lab environment led by our expert instructor, attendees will

Understand the different kinds of recommender systems

Master data-wrangling techniques using the pandas library

Building an IMDB Top 250 Clone

Build a content-based engine to recommend movies based on real movie metadata

Employ data-mining techniques used in building recommenders

Build industry-standard collaborative filters using powerful algorithms

Building Hybrid Recommenders that incorporate content based and collaborative filtering

Detailed Course Outline

Getting Started with Recommender Systems

- Technical requirements
- What is a recommender system
- Types of recommender systems

Manipulating Data with the Pandas Library

- Technical requirements
- Setting up the environment
- The Pandas library
- The Pandas DataFrame
- The Pandas Series

Building an IMDB Top 250 Clone with Pandas

- Technical requirements
- The simple recommender
- The knowledge-based recommender

Building Content-Based Recommenders

- Technical requirements
- Exporting the clean DataFrame
- Document vectors
- The cosine similarity score
- Plot description-based recommender
- Metadata-based recommender
- Suggestions for improvements

Getting Started with Data Mining Techniques

- Problem statement
- Similarity measures
- Clustering
- Dimensionality reduction
- Supervised learning
- Evaluation metrics

Building Collaborative Filters

- Technical requirements
- The framework
- User-based collaborative filtering
- Item-based collaborative filtering
- Model-based approaches

Hybrid Recommenders

- Technical requirements
- Introduction
- Case study and final project Building a hybrid model

, DAY ONE

Getting Started with Recommender Systems

Technical requirements

What is a recommender system

Types of recommender systems

Hands-on Activity / Lab

Manipulating Data with the Pandas Library

Technical requirements

Setting up the environment

The Pandas library

The Pandas DataFrame

The Pandas Series

Lab

Building your First Recommender with Pandas

Technical requirements

The simple recommender

The knowledge-based recommender

Hands-on Activity / Lab

Building Content-Based Recommenders

Technical requirements

Exporting the clean DataFrame

Document vectors

The cosine similarity score

Plot description-based recommender

Metadata-based recommender

Suggestions for improvements

Hands-on Activity / Lab

DAY TWO

Getting Started with Data Mining Techniques

Problem statement

Similarity measures

Clustering

Dimensionality reduction

Supervised learning

Evaluation metrics

Hands-on Activity / Lab

Building Collaborative Filters

Technical requirements

The framework

User-based collaborative filtering

Item-based collaborative filtering

Model-based approaches

Hands-on Activity / Lab

Using PineCone

Technical requirements

Introduction

Case study and project

Hands-on Activity / Lab

DAY THREE or OPTIONAL CONTENT

Deploying as a Serverless Component (OPTIONAL)

Technical requirements

Introduction

Deploy as a Serverless Service

Generative AI and Its Magic with GPT

Introduction to GPT and Generative AI

GPT in Recommendation Systems

Explore GPT's role in fine-tuning user preferences.

Lab

Ethical AI €œ Navigating the Grey Areas

Understanding Ethical Implications in AI

Grasp the moral complexities in recommendation systems.

Bias and Fairness in Recommenders

Dissect potential biases in AI-driven recommendations.

Lab

Job Aids Using Generative AI

Introduction to AI-Powered Job Aids

Understand how GPT can aid daily tasks.

Applications in Data Processing and Analysis

Learn GPT's role in data analytics enhancements.

Lab

Additional Course Details

Nexus Humans Building Recommendation Systems with Python (TTAI2360) training program is a workshop that presents an invigorating mix of sessions, lessons, and masterclasses meticulously crafted to propel your learning expedition forward.

This immersive bootcamp-style experience boasts interactive lectures, hands-on labs, and collaborative hackathons, all strategically designed to fortify fundamental concepts.

Guided by seasoned coaches, each session offers priceless insights and practical skills crucial for honing your expertise. Whether you're stepping into the realm of professional skills or a seasoned professional, this comprehensive course ensures you're equipped with the knowledge and prowess necessary for success.

While we feel this is the best course for the Building Recommendation Systems with Python (TTAI2360) course and one of our Top 10 we encourage you to read the course outline to make sure it is the right content for you.

Additionally, private sessions, closed classes or dedicated events are available both live online and at our training centres in Dublin and London, as well as at your offices anywhere in the UK, Ireland or across EMEA.

Frequently Asked Questions

Q: What delivery options are available for Building Recommendation Systems with Python (TTAI2360)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 3-day Building Recommendation Systems with Python (TTAI2360) course provides up to 19.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Building Recommendation Systems with Python (TTAI2360) training?

The training takes place over 3 day(s), with each day lasting approximately 24.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Building Recommendation Systems with Python (TTAI2360)?

Yes, we provide corporate training, dedicated training, and closed classes for Building Recommendation Systems with Python (TTAI2360). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: AI; Machine Learning; Applied AI; Python

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Q: Why choose Nexus Human for Building Recommendation Systems with Python (TTAI2360)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Building Recommendation Systems with Python (TTAI2360) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

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