A Summer Internship Report

On

BOOK RECOMMENDATION SYSTEM

Submitted for partial fulfillment of the requirements for the award of the degree of

BACHELOR OF ENGINEERING

in

INFORMATION TECHNOLOGY

by

M.AmithaSree	2451-21-737-076
K.Sravani	2451-21-737-106
A.Sreeja	2451-21-737-112

Carried a Virtual Internship
From
AICTE Eduskills Academy

MATURI VENKATA SUBBA RAO (M.V.S.R) ENGINEERING COLLEGE

(An Autonomous Institution)

Department of Information Technology

(Affiliated to Osmania University & Recognized by AICTE)

Nadergul, SaroorNagar Mandal, Hyderabad – 501 510

AY: 2024-25

CERTIFICATE

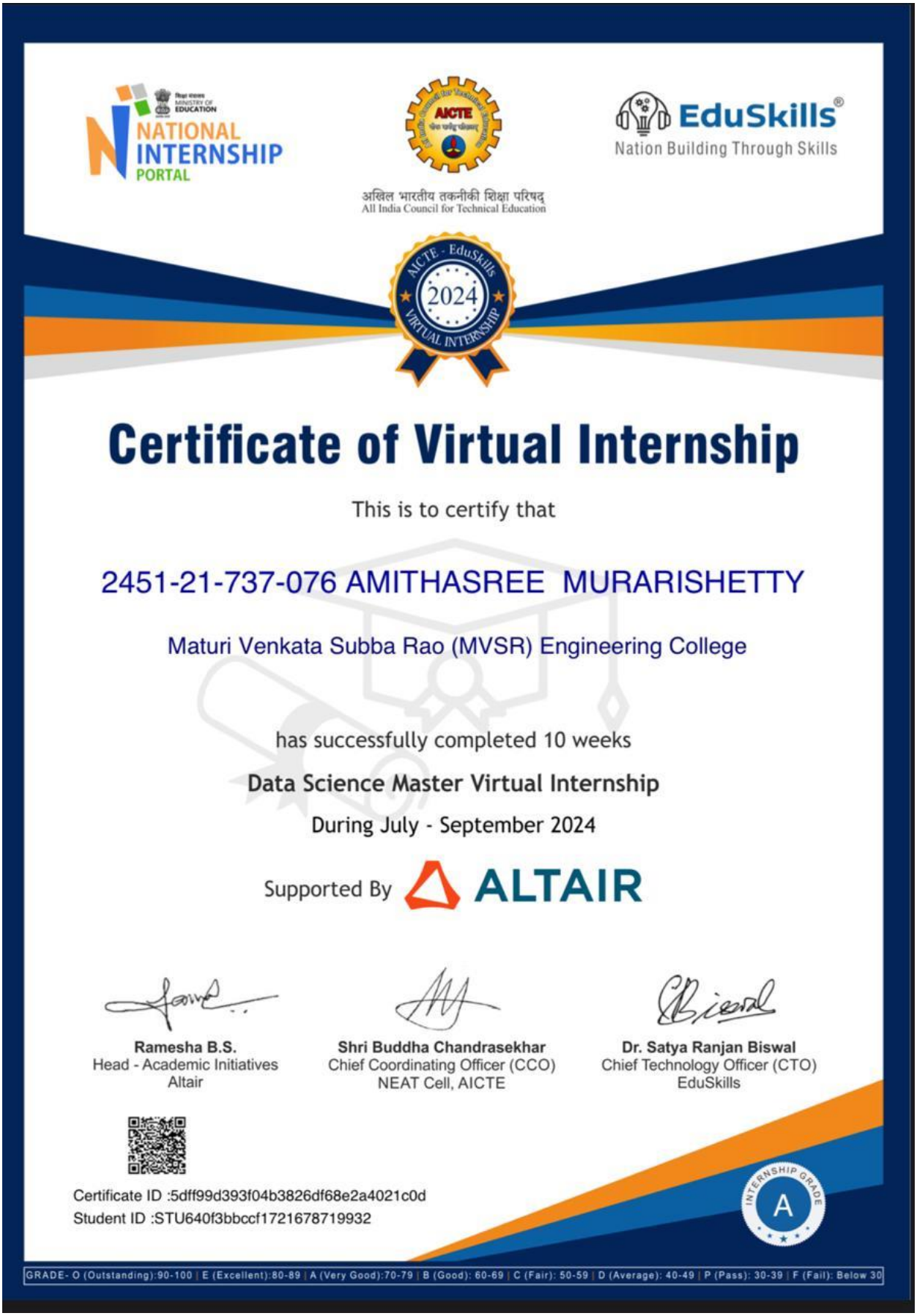
This is to certify that the Summer Internship entitled ***"Book Recommendation System "*** *is a bonafide work carried out by Ms. M.AmithaSree(2451-21-737-076), Ms. K.Sravani(2451-21-737-106), Ms. A.Sreeja (2451-21-737-112) in partial fulfilment of the requirements for the award of degree of Bachelor of Engineering in Information Technology from Maturi Venkata Subba Rao (M.V.S.R.) Engineering College, an Autonomous Institution, affiliated to Osmania University Hyderabad, during the Academic Year 2024-25 through virtual mode from AICTE – Eduskills in Data Science.*

The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Summer Internship Co-ordinator
Dr. H. Jayasree
Professor, ITD

HOD
Dr. K. Venugopal Rao
Dean – Academics,
Professor & Head -ITD

External Examiner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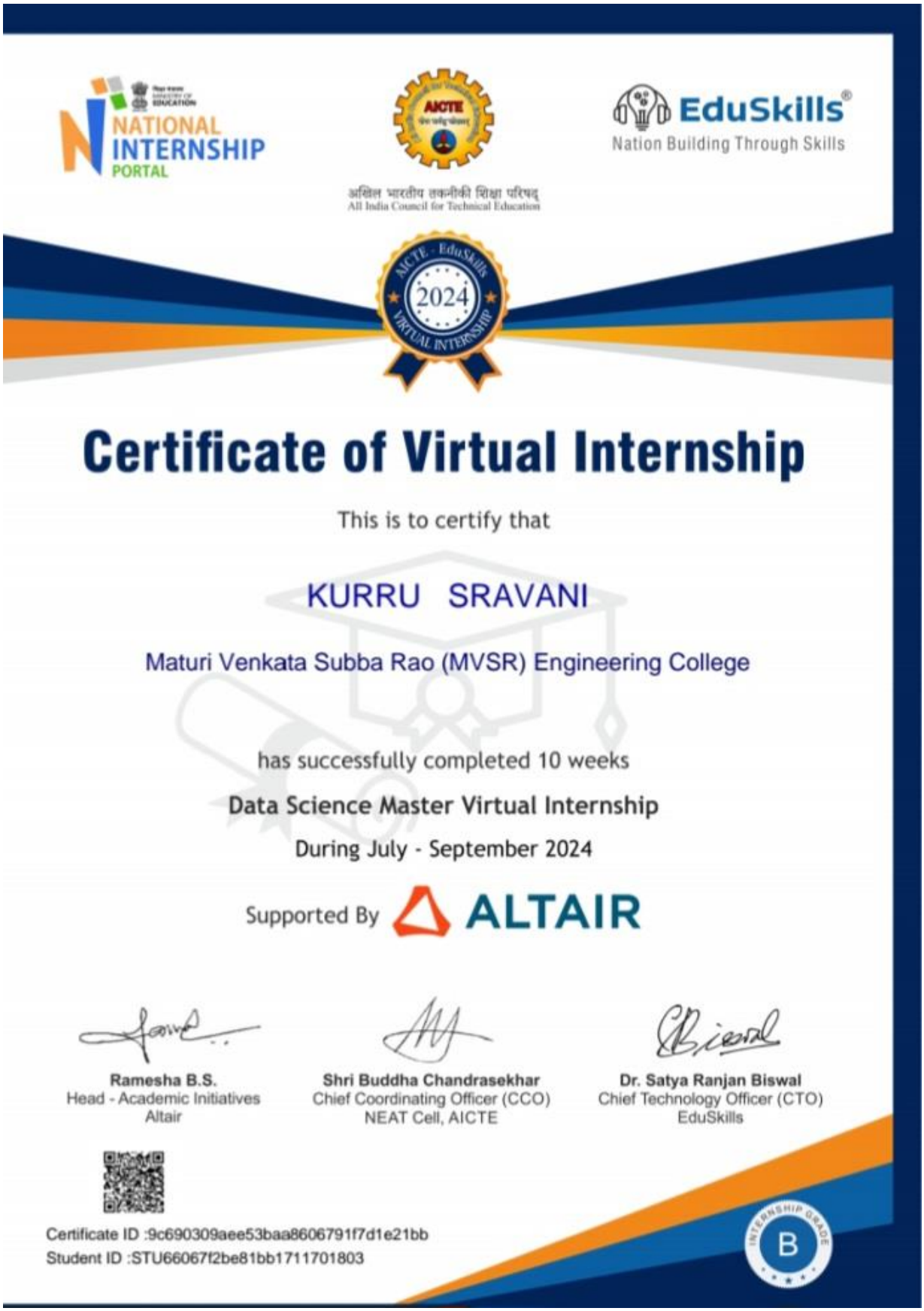
All India Council for Technical Education
EduSkills
Nation Building Through Skills
AICTE - EduSkills
2024
VIRTUAL INTERNSHIP
Certificate of Virtual Internship
This is to certify that
2451-21-737-076 AMITHASREE MURARISHETTY
Maturi Venkata Subba Rao (MVSR) Engineering College
has successfully completed 10 weeks
Data Science Master Virtual Internship
During July - September 2024
Supported By ALTAIR
Ramesha B.S.
Head - Academic Initiatives
Altair
Shri Buddha Chandrasekhar
Chief Coordinating Officer (CCO)
NEAT Cell, AICTE
Dr. Satya Ranjan Biswal
Chief Technology Officer (CTO)
EduSkills
Certificate ID :5dff99d393f04b3826df68e2a4021c0d
Student ID :STU640f3bbccf1721678719932
INTERNSHIP GRADE
A
GRADE- O (Outstanding):90-100 | E (Excellent):80-89 | A (Very Good):70-79 | B (Good): 60-69 | C (Fair): 50-59 | D (Average): 40-49 | P (Pass): 30-39 | F (Fail): Below 30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2024
VIRTUAL INTERNSHIP
Certificate of Virtual Internship
This is to certify that
KURRU SRAVANI
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During July - September 2024
Supported By ALTAIR
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Student ID :STU66067f2be81bb1711701803
INTERNSHIP GRADE
B

NATIONAL INTERNSHIP PORTAL

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AICTE - EduSkills 2024 VIRTUAL INTERNSHIP

Certificate of Virtual Internship

This is to certify that

A Sreeja

Maturi Venkata Subba Rao (MVSR) Engineering College

has successfully completed 10 weeks

Data Science Master Virtual Internship

During July - September 2024

Supported By ALTAIR

Ramesha B.S.
Head - Academic Initiatives
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Shri Buddha Chandrasekhar
Chief Coordinating Officer (CCO)
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Dr. Satya Ranjan Biswal
Chief Technology Officer (CTO)
EduSkills

Certificate ID :2e14e60a68fb96a5549e6816747d405f
Student ID :STU6606774022b5b1711699776

INTERNSHIP GRADE O

GRADE- O (Outstanding):90-100 | E (Excellent):80-89 | A (Very Good):70-79 | B (Good): 60-69 | C (Fair): 50-59 | D (Average): 40-49 | P (Pass): 30-39 | F (Fail): Below 30

DECLARATION

This is to certify that the work reported in the present Summer Internship report entitled "**Book Recommendation system** " is a record of bonafide work done by us in the Department of Information Technology, Maturi Venkata Subba Rao (M.V.S.R.) Engineering College, an Autonomous Institution, affiliated to Osmania University. The reports are based on the case stust done entirely by us and not copied from any other source. The results embodied in this report have not been submitted to any other University or Institute for the award of any degree or diploma to the best of our knowledge and belief.

M.AmithaSree	K.Sravani	A.Sreeja
(2451-21-737-076)	(2451-21-737-106)	(2451-21-737-112)

ACKNOWLEDGEMENT

We would like to express our sincere gratitude to Shri Buddha Chandrasekhar Chief Coordinating officer(CCO),NEAT Cell, AICTE and Dr.Satya Ranjan Biswal Chief Technology officer(CTO), EduSkills for giving an opportunity to carry out virtual internship through AICTE, EduSkills and giving valuable suggestions and interest throughout the course of the internship.

We would like to express our sincere gratitude to our Summer Internship Co-ordinator, **Dr. H. Jayasree**, Professor for her valued recommendations and attention throughout the course.

We are also thankful to our Principal **Dr. Vijaya Gunturu Professor** and **Dr. K.Venugopal Rao,** Professor and Head - Department of Information Technology, Dean Academics, Maturi Venkata Subba Rao Engineering College, for providing excellent infrastructure and a nice atmosphere to carry out case study on the training obtained through internship.

Finally, we would like to take this opportunity to thank our family for their support through the work. We sincerely acknowledge and thank all those who gave directly or indirectly their support in completion of this work.

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K.Sravani	245121737106
A.Sreeja	245121737112

VISION & MISSION,

PROGRAM EDUCATIONAL OUTCOMES

Vision of the Department:

To impart technical education producing competent and socially responsible engineering professionals in the field of Information Technology.

Mission of the Department:

M1. To make teaching learning process effective and stimulating.

M2. To provide adequate fundamental knowledge of sciences and Information Technology with positive attitude.

M3. To create an environment that enhances skills and technologies required for industry.

M4. To encourage creativity and innovation for solving real world problems.

M5. To cultivate professional ethics in students and inculcate a sense of responsibility towards society

Program Educational Objectives:

After 3 to 4 years of graduation, graduates of the Information Technology program will:

I. Apply knowledge of mathematics and Information Technology to analyze, design and implement solutions for real world problems in core or in multidisciplinary areas.

II. Communicate effectively, work in a team, practice professional ethics and apply knowledge of computing technologies for societal development.

III. Engage in Professional development or postgraduate education to be a life-long learner.

PROGRAM OUTCOMES & PROGRAM SPECIFIC OUTCOMES

PROGRAM OUTCOMES (POs)

Engineering Graduates will be able to:

1. **Engineering knowledge**: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis**: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions**: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems**: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage**: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society**: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability**: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work**: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication**: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance**: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning**: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES (PSOs):

PSO1: **Hardware design**: An ability to analyze, design, simulate and implement computer hardware / software and use basic analog/digital circuits, VLSI design for various computing and communication system applications.

PSO2:**Software design**: An ability to analyze a problem, design algorithm, identify and define the computing requirements appropriate to its solution and implement the same.

COURSE OBJECTIVES & COURSE OUTCOMES

COURSE OBJECTIVES

Student should be able to

- To gain practical experience and develop skills relevant to their field of study or career aspirations.
- To explore the work environment and dynamics of the industry they are interested in helping them gain insights into professional practices and expectations.
- To apply theoretical knowledge gained from their academic studies to real-world projects and challenges, enhancing their understanding and competence in their chosen field.
- To build professional networks by interacting with professionals, mentors and fellow interns in their field, which can lead to future career opportunities.

COURSE OUTCOMES

After completion of the course student will be able to:

- Demonstrate improved technical skills, problem-solving abilities, critical thinking, and other relevant skills specific to their field.
- Demonstrate hands-on experience in executing tasks, working on projects, and utilizing tools and technologies relevant to their field.
- Exhibit enhanced professionalism in areas such as communication, teamwork, time management and work ethics.
- Display increased self-confidence in their abilities, having successfully completed tasks, projects and assignments during their internship.
- Expand their professional network through interactions with colleagues, mentors and industry professionals, creating valuable connections for future career opportunities.

Overview of Internship Activity

Details of the Internship : AICTE-EduSkills – COHORT 8
Mode of the internship: Online
Duration of the internship: 10 weeks
Technology Explored through internship:
Domain Knowledge Explored through internship: AI-ML

Weekly Report of Internship Activity

Week No.	Activity carried out
1	Introduction Data science Professional with RapidMiner
2	Introduction to Application and Use Cases
3	Introduction to Data Engineering
4	Introduction to Machine Learning
5	Introduction to Data Science Master with RapidMiner
6	Mastering Data Engineering
7	Mastering Machine Learning
8	Mastering Applications & Use Cases
9	Rapid Miner Platform Administration
10	Final Assessment and Case Study

ABSTRACT

Book recommendation systems have emerged as a crucial tool in the modern digital era, helping readers discover new books that align with their preferences and tastes. These systems leverage a variety of methodologies, including collaborative filtering, content-based filtering, and hybrid approaches, to provide personalized suggestions. Collaborative filtering relies on user behavior, such as ratings or reading history, to recommend books similar to those enjoyed by others with similar preferences. Content-based filtering, on the other hand, analyzes the attributes of books such as author, or themes to suggest similar titles. Hybrid systems combine both methods for more accurate recommendations. Some systems combine both methods to give better recommendations. More advanced systems can even analyze book summaries and reviews to offer more accurate suggestions The goal is to provide personalized book recommendations, making it easier for users to discover new books they'll enjoy, whether they're using an online bookstore or a library system. Over time, the system improves as it learns more about the user's interests.

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