

Queries used for testing:

1. Irrelevant queries: works - single sorry message
2. Python for industrial engineers - works
3. What are the best courses to transition into Data Science from a mechanical engineering background? - works
4. I am a final-year mechanical engineering student. What courses can help me get into data science? - works
5. I want to become a machine learning engineer in the automotive sector. What should I study? - works
6. How do I switch from a production engineer to a data analyst role in manufacturing? - works
7. What courses can help me apply AI to optimize manufacturing operations? - works
8. As a machine operator, what courses can help me upskill into a data-driven role? - works
9. Are there any courses that teach Data Visualization for mechanical engineers? - works
10. What courses can help me use sensor data and perform analytics? - works
11. What courses cover Data Science and AI in Industry 4.0? - works
12. What are the modules included in Data Analytics course? - works
13. What are the modules under Sensor Analytics course? - works
14. List all the IMPEL courses - works
15. What are the courses and modules that teach Machine Learning? - works
16. What are the courses for optimization? - works
17. Which IMPEL courses should I take to deepen my knowledge of natural language processing? - works
18. What does a machine learning engineer do, and what is their average salary? - works
19. What are the latest trending skills for data engineers in 2025? – works
20. What courses should I take to become a data scientist, and what are the top trending skills for that role? - works
21. Tell me about product manager careers: responsibilities, salary ranges, and in-demand skills. - works
22. Based on my resume, recommend courses that will help me transition into a cloud engineering role - works
23. Given my background, which courses should I take to move into a AI research role, and what skills should I develop for that career? – works
24. What is the learning path to become a Data Scientist? – works
25. What can we do for analytics in the manufacturing industry? – works
26. What are the skill requirements for data science jobs in the manufacturing industry? - works

Query: Python courses for industrial engineers:

Personalized Course Recommendation System

User ID

P101

Education

☐ High School

☐ Undergraduate

☒ Graduate

Age Group

☐ Under 18

☒ 18-25

☐ 26-40

☐ 40+

Professional Status

☒ Student

☐ Professional

Enter Your Query

Python courses for industrial engineers

📎 Upload Resume (PDF or DOCX)

📁

Drop File Here

- or -

Click to Upload

🟢 Recommendation Agent activated: Personalized Recommendations Ready!

Content-based Recommendations

📌 Top 3 Impel Courses

- Computation and Visualization

- Basics of Python

- Modern Data Structures

- Algorithm and Optimization - Module: Graphs

📄 Research Papers

- Data science skills and domain knowledge requirements in the manufacturing industry: a gap analysis.pdf

- Main-Data_Skills_in_Manufacturing.pdf

Collaborative Filtering Recommendations

Recommended based on similar users' interests:

Course: Computation and Visualization

- Introduction to Python Notebook Using Google Colab

- Basics of Python

- introduction to Data visualization

- Visualizing Amounts

- Visualizing Distributions and Relationships

- Visualizing Time Series

Course: Data Management for Analytics

- Structured Query Language, Part 1

- Structured Query Language, Part 2

- Structured Query Language, Part 3

The courses and modules recommended above are specifically tailored to the user's interest in Python for industrial engineers. The "Computation and Visualization" course offers a comprehensive introduction to Python programming, data structures, and visualization techniques, providing a solid foundation for industrial engineering tasks. The "Data Management for Analytics" course delves into SQL (Structured Query Language), which is an invaluable skill for managing and manipulating data in databases, a common requirement for industrial engineers.

These courses will equip the user with practical Python skills and enhance their data handling expertise, ensuring they are well-prepared for various industrial engineering projects and challenges.

Similar Users Enrolled In

- Computation and Visualization

- Cyber-Manufacturing Systems

- Data Analytics

- Data Management for Analytics

- Robotics & Automation

- Sensor Analytics

Query: I am a final-year mechanical engineering student. What courses can help me get into data science?

Personalized Course Recommendation System

User ID

P102

Education

☐ High School

☒ Undergraduate

☐ Graduate

Age Group

☐ Under 18

☒ 18-25

☐ 26-40

☐ 40+

Professional Status

☒ Student

☐ Professional

Enter Your Query

I am a final-year mechanical engineering student. What courses can help me get into data science?

Upload Resume (PDF or DOCX)

Drop File Here

- or -

- Programming languages (Python, R)

- Statistics and machine learning algorithms

- Data structures

- Knowledge of engineering concepts is also valuable

- Salary:
The average salary for a Data Scientist in the US is around \$102,000 per year.

Responsibilities include:

- Analyzing large datasets

- Developing machine learning models

- Providing insights and predictions to help businesses make informed decisions

- Collaboration and communication:

Data Scientists also need to collaborate with various teams and effectively communicate complex ideas, along with the ability to adapt to new technologies and trends in data science.

🎓 Top 3 IMPEL Courses

1. Data Analytics - Module: Introduction to Data Analytics

2. Sensor Analytics - Module: Course Overview

3. Data Management for Analytics - Module: Data Management, Relational Model

Collaborative Filtering Recommendations

Recommended based on similar users' interests:

Course: Data Analytics

- Introduction to Data Analytics

- Data Visualization

- Dimension Reduction

- Performance Evaluation

Query: I want to become a machine learning engineer in the automotive sector. What should I study?

Personalized Course Recommendation System

User ID

P103

Education

☐ High School

☐ Undergraduate

☒ Graduate

Age Group

☐ Under 18

☐ 18-25

☒ 26-40

☐ 40+

Professional Status

☐ Student

☒ Professional

Enter Your Query

I want to become a machine learning engineer in the automotive sector. What should I study?

Upload Resume (PDF or DOCX)

Recommendation Agent activated: Personalized Recommendations Ready!

Content-based Recommendations

Salary:

- Varies based on experience, location, and company.

- Entry-level: \$70,000-\$80,000 per year

- Experienced engineers: Significantly more

Responsibilities:

- Design and develop ML models for automotive applications

- Collaborate with engineers and data scientists

- Conduct code reviews

- Work on projects from concept to deployment

- Stay updated on ML trends

Top 3 IMPEL Courses

1. Sensor Analytics - Module: Course Overview

2. Robotics & Automation - Module: Introduction to Robotics

3. Robotics & Automation - Module: Sensing and Perception

Recommended based on similar users' interests:

Course: Data Analytics

- Introduction to Data Analytics

- Data Visualization

- Dimension Reduction

- Performance Evaluation

- Multiple Linear Regression

- k-Nearest Neighbors

- Decision Trees

- Logistic Regression

Course: Data Management for Analytics

- Introduction & Overview of Database Management

- Conceptual Data Modeling

- Data Management, Relational Model

- Relational Model Normalization and Mapping of EER Model to Relational Model

- Structured Query Language, Part 1

- Structured Query Language, Part 2

- Structured Query Language, Part 3

Similar Users Enrolled In

- Robotics & Automation

- Sensor Analytics

Query: Are there any courses that teach Data Visualization for mechanical engineers?

Personalized Course Recommendation System

User ID

P106

Education

☐ High School

☐ Undergraduate

☒ Graduate

Age Group

☐ Under 18

☒ 18-25

☐ 26-40

☐ 40+

Professional Status

☒ Student

☐ Professional

Enter Your Query

Are there any courses that teach Data Visualization for mechanical engineers?

Upload Resume (PDF or DOCX)

Drop File Here

- or -

Click to Upload

☒ Recommendation Agent activated: Personalized Recommendations Ready!

Content-based Recommendations

📌 Top 3 Impel Courses

- Computation and Visualization

- Module: Introduction to Data Visualization

- Module: Visualizing Distributions and Relationships

- Data Analytics

- Module: Data Visualization

📄 Research Papers

- Investigating_the_Data_Science_Skill_Gap_An_Empirical_Analysis.pdf

- Data science skills and domain knowledge requirements in the manufacturing industry: a gap analysis.pdf

- Main-Data_Science_Skills_in_Manufacturing.pdf

- Closing the Advanced Manufacturing Talent Gap.pdf

Collaborative Filtering Recommendations

- Introduction to Data Visualization

- Visualizing Amounts

- Visualizing Distributions and Relationships

- Visualizing Time Series

This course, "Computation and Visualization," is specifically designed to provide an understanding of data visualization techniques, which are essential for conveying information and insights effectively. The course covers fundamental concepts, explores various visualization types, and teaches practical skills for creating compelling and informative visualizations.

Recommended based on similar users' interests:

****Course: Computation and Visualization****

- Introduction to Data Visualization

- Visualizing Amounts

- Visualizing Distributions and Relationships

- Visualizing Time Series

This course, "Computation and Visualization," is specifically designed to provide an understanding of data visualization techniques, which are essential for conveying information and insights effectively. The course covers fundamental concepts, explores various visualization types, and teaches practical skills for creating compelling and informative visualizations.

The first module, "Introduction to Data Visualization," lays the groundwork by distinguishing between data and information and emphasizing the importance of visual representation. The subsequent modules, "Visualizing Amounts," "Visualizing Distributions and Relationships," and "Visualizing Time Series," offer comprehensive coverage of different visualization techniques.

"Visualizing Amounts" focuses on bar charts, pie charts, and heatmaps, teaching participants how to represent and analyze amounts and distributions effectively. "Visualizing Distributions and Relationships" builds on this by exploring histograms, density plots, scatter plots, and pair plots, enabling learners to interpret data distributions and relationships. "Visualizing Time Series" equips participants with techniques for analyzing temporal patterns and trends, utilizing line plots, area plots, and seasonal decomposition methods.

Similar Users Enrolled In

- Computation and Visualization

- Data Analytics

- Data Management for Analytics

Query: What can we do for analytics in the manufacturing industry?

Personalized Course Recommendation System

User ID

Test5

Education

☐ High School

☐ Undergraduate

☒ Graduate

Age Group

☐ Under 18

☒ 18-25

☐ 26-40

☐ 40+

Professional Status

☒ Student

☐ Professional

Enter Your Query


What can we do for analytics in the manufacturing industry?

Upload Resume (PDF or DOCX)

Drop File Here

- or -

Click to Upload

 Personalized Recommendations Ready!

Content-based Recommendations

Job Role (Manufacturing Analyst)

- Skills required include:

- strong numerical abilities

- critical thinking

- problem-solving

- proficiency in data analysis and interpretation

- knowledge of data visualization tools and statistical software

- Salary range: \$65,000-\$85,000 per year. Benefits include healthcare, retirement plans, and potential bonuses.

- Responsibilities include:

- analyzing complex data sets

- identifying trends and patterns to improve processes

- providing actionable insights to management

Top 3 Impel Courses:

1. Sensor Analytics - Module: Course Overview

2. Data Analytics - Module: Multiple Linear Regression

3. Sensor Analytics - Module: Measurement Systems

Collaborative Filtering Recommendations

Recommended for you based on similar users' profiles and interests:

Course: Data Analytics

- Introduction to Data Analytics

- Data Visualization

- Dimension Reduction

- Association Rules

Course: Data Management for Analytics

- Introduction & Overview of Database Management

- Conceptual Data Modeling

- Data Management, Relational Model

- Relational Model Normalization and Mapping of EER Model to Relational Model

- Structured Query Language, Part 1

- Structured Query Language, Part 2

- Structured Query Language, Part 3

- NoSQL Databases

Course: Computation and Visualization

- Introduction to Python Notebook Using Google Colab

- Review of Python

Similar Users Enrolled In

- Cyber-Manufacturing Systems

- Robotics & Automation

Query: What are the skill requirements for data science jobs in manufacturing industries?

Personalized Course Recommendation System

User ID

P112

Education

☐ High School

☐ Undergraduate

☒ Graduate

Age Group

☐ Under 18

☒ 18-25

☐ 26-40

☐ 40+

Professional Status

☒ Student

☐ Professional

Enter Your Query

What are the skill requirements for data science jobs in manufacturing industries

Upload Resume (PDF or DOCX)

Drop File Here

- or -

Click to Upload

Recommendation Agent activated: Personalized Recommendations Ready!

Content-based Recommendations

🔥 Trending Skills

Hard Skills:

- Programming Languages: Proficiency in R, Python, and SQL is essential for data manipulation, analysis, and modeling.

- Data Engineering: Strong skills in data structures, algorithms, and database management.

- Machine Learning: Experience with regression, classification, clustering, and neural networks.

- Statistics & Mathematics: Proficiency in statistical analysis and inference, and understanding of advanced mathematical concepts.

- Data Visualization: Creating effective visual representations of complex data.

Soft Skills:

- Analytical Thinking: Breaking down complex problems and developing innovative solutions.

- Business Acumen: Understanding business objectives and aligning data insights with company goals.

- Communication: Conveying complex ideas to stakeholders, verbally and in writing.

- Collaboration: Working cross-functionally with various teams.

- Problem Solving: Solving complex problems independently.

📋 Job Role: Skills, Responsibilities, and Salary Expectations

Collaborative Filtering Recommendations

Collaborative Filtering Recommendations

- Conceptual Data Modeling

- Data Management, Relational Model

- Relational Model Normalization and Mapping of EER Model to Relational Model

- Structured Query Language, Part 1

- Structured Query Language, Part 2

- Structured Query Language, Part 3

Course: Computation and Visualization

- Introduction to Python Notebook Using Google Colab

- Basics of Python

- Non-Primitive Data Structures

- Modern Data Structures

- Introduction to Data Visualization

- Visualizing Amounts

- Visualizing Distributions and Relationships

The courses and modules listed above are tailored to the user's interest in data analytics, data management, and computation and visualization. These courses will equip the user with a solid foundation in data handling, analysis, and presentation, which are essential skills for data science jobs in manufacturing industries.

Additionally, the following modules from other courses may be beneficial:

Similar Users Enrolled In

- Cyber-Manufacturing Systems

- Robotics & Automation

Query: What is the learning path to become a Data Scientist?

Personalized Course Recommendation System

User ID

P113

Education

☒ High School

☐ Undergraduate

☐ Graduate

Age Group

☒ Under 18

☐ 18-25

☐ 26-40

☐ 40+

Professional Status

☒ Student

☐ Professional

Enter Your Query

What is the learning path to become a Data Scientist?

Upload Resume (PDF or DOCX)

Drop File Here

- or -

Click to Upload

Recommendation Agent activated: Personalized Recommendations Ready!

Content-based Recommendations

Annual Salary range: \$00,000-\$50,000.

Responsibilities:

- Mining large datasets for insights

- Developing machine learning models

- Applying advanced analytical techniques to real-world problems

- Collaborating with various organizational teams

- Designing and conducting experiments

- Interpreting results

- Presenting findings to stakeholders

📚 Top 3 IMPEL Courses

1. Data Analytics - Module: Introduction to Data Analytics

2. Ethics, Privacy and Cybersecurity - Module: AI and Data Ethics

3. Data Analytics - Module: Logistic Regression

📄 Research Papers

- Investigating_the_Data_Science_Skill_Gap_An_Empirical_Analysis.pdf

- Data science skills and domain knowledge requirements in the manufacturing industry - a gap analysis.pdf

- Main-Data_Science_Skills_in_Manufacturing.pdf

Collaborative Filtering Recommendations

Collaborative Filtering Recommendations

Performance Evaluation

Multiple Linear Regression

k-Nearest Neighbors

Naive Bayes

Decision Trees

Logistic Regression

Association Rules

Course: Data Management for Analytics

- Introduction & Overview of Database Management

- Conceptual Data Modeling

- Data Management, Relational Model

- Relational Model Normalization and Mapping of EER Model to Relational Model

- Structured Query Language, Part 1

- Structured Query Language, Part 2

- Structured Query Language, Part 3

- NoSQL Databases

Course: Computation and Visualization

- Introduction to Python Notebook Using Google Colab

- Basics of Python

Similar Users Enrolled In

- Computation and Visualization

- Data Analytics