Data Analytics, Big Data & Data Science:

Increasing Confidence in Business Decisions In an Uncertain Digital Economy

A Holistic Approach to Optimize Your Workforce

Learn More ▶

Comprehensive Data Science Learning Paths

Learn More ▶

Power BI — Unlocking the Value of Your Data

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Top 3 Data Science Pain Points

What can you do to transform data frustrations into clarity and peace of mind?

Hiring

Identifying the right job roles and hiring the right team is essential to the success of your data science team.

Stakeholder Collaboration

Data science success requires a culture shift — not just a technology shift. Stakeholder buy-in, as well as understanding of their needs, is critical.

Domain Knowledge

Understanding your organization's data environment better informs limitations and improves predictive accuracy.

Learning Tree's Data Science Training
The Tools & Techniques to Make Better Business Decisions

Our data science training curriculum will teach your team how to create data-driven business strategies, and store, manage, process, and analyze large data sets.

Gain data science skills in:

» Artificial Intelligence

» Deep Learning

» Machine Learning

» Power BI

» Azure

» Big Data

» Statistics

» IoT

» Python

» Tableau

» Data Wrangling

... and more!

NEW!
Data Science Training Bundles

Take your data science skills — and career — to the next level with multi-modal learning path bundles.

- **Extends learning beyond a single event with bundled content designed for continued real-world application!**
- Exam Vouchers Included!
- 100% Virtual Attendance Available, plus Class Recordings via AnyWare®
- Expert Instructor Guidance & After-Course Coaching Included
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Bundle Training Benefits:

Choose from These Popular Topics:

Data Science

Intro to Big Data

Data Science, Machine Learning & AI w/Python

Certified Python Programming Professional

Certified Python Data Science Developer

Certified Machine Learning Professional

Certified Deep Learning Professional

Specialist in Tableau for Data Science

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Azure

Azure Data Scientist

Azure AI Engineer

Azure Data Engineer

Azure Solutions Architect

Learn More ▶

Power Platform

Analyzing Data with Power BI

Power Platform Specialist

Learn More ▶

Learn More & Purchase at:
www.LearningTree.com/DSBundles

Defining the Pieces of the Data Puzzle

Explore the 6 Major Skills Areas that Make Up Data Science

DATA ANALYTICS
is the most common use of data, involving extracting data from relational databases (e.g., SQL Server, Oracle) and presenting findings as reports and corporate dashboards.

SKILLS NEEDED

- Manipulate databases using SQL
- Use dashboard tools and design effective dashboards
- Utilize statistical tools to maintain data integrity
- Produce effective, clear charts that inform, rather than confuse, decision makers

MACHINE LEARNING (ML)
involves training computers, through repeated presentation of observations and outcomes, to make predictions that are not obvious to a person.

SKILLS NEEDED

- Expertise modeling techniques/tools
- Understanding the statistical basis of algorithms
- Programming (Python or other ML language)
- Work closely with data scientists to ensure machine learning technology delivers results for the organization

BIG DATA
describes working with data that is too large to be processed using standard (e.g., workstation, single server) tools. Popular platforms include Hadoop, Spark, and Tableau.

SKILLS NEEDED

- Operate and manage clusters of networked computers
- Maintain high availability of the cluster
- Understand how cyber security issues can affect big data
- Programming using enterprise languages, such as Java and Scala

AI
has been around since the 1950s, but today's AI researchers use cutting-edge tech like deep learning (aka, neural networks), Natural Language Processing (NLP), and image processing (used in self-driving cars).

SKILLS NEEDED

- Highly specialized by area of research and niche expertise
- Programming and writing code for machines
- Designing and developing machines and systems that can learn and apply knowledge without specific direction.
- Research, analytical, organizational, and criticial thinking skills

MACHINE LEARNING

DATA ANALYTICS

ARTIFICIAL INTELLIGENCE (AI)

Defining the Pieces of the Data Puzzle

DATA VISUALIZATION

BIG DATA

DECISION ANALYSIS

DATA VISUALIZATION
involves representing information visually (e.g., charts, tables, diagrams, illustrations) in order to bring data to life in a way that's easy to understand to drive better business decisions.

SKILLS NEEDED

- Expertise modeling techniques/tools
- Understanding the statistical basis of algorithms
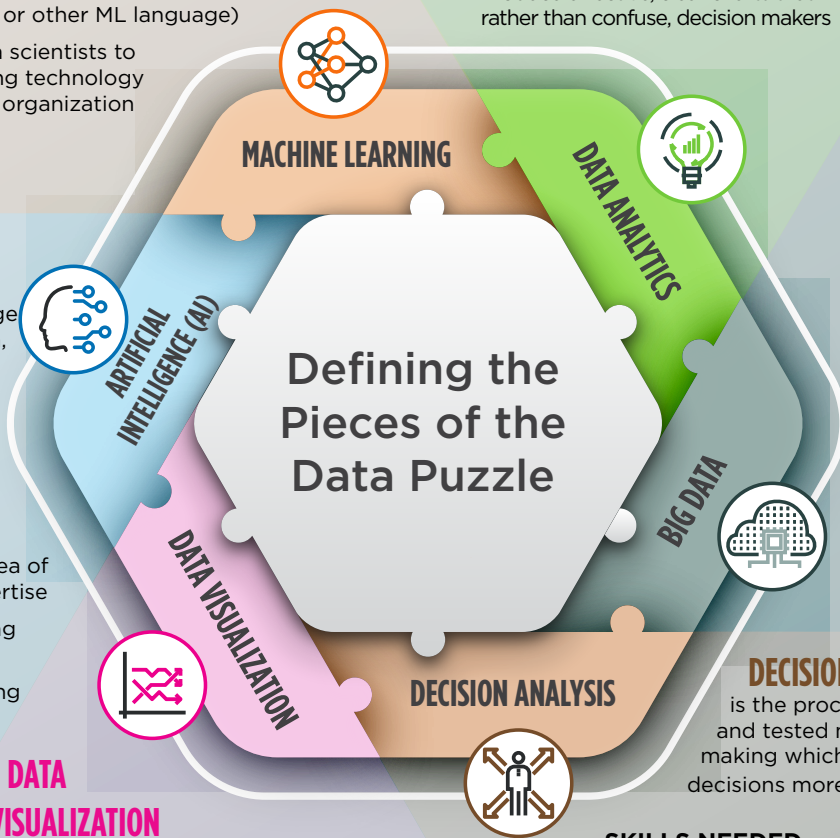- Programming (Python or other ML language)
- Work closely with data

scientists to ensure machine learning technology delivers results for the organization

DECISION ANALYSIS
is the process of applying a standardized and tested methodology for decision-making which helps organization make decisions more easily and transparently.

SKILLS NEEDED

- Formalize the decision-making process
- Frame decisions, think creatively, analyze, and implement informed and justifiable decisions
- Understand uncertainty with data
- Use multi-criteria alternatives
- Leverage skills/tools like emotional intelligence, management techniques, decision trees, diagrams, and more

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Learning Tree's Comprehensive Data Science Learning Paths

Course #	HR Administrator/L&D Specialist	Level
3656	Preparing for a Digital Transformation Initiative	Foundation

Course #	Business Analyst/Business Architect	Level
1255	Introduction to Decision Analysis	Foundation
1256	Tableau Visual Analytics Training	Foundation
8649	Power BI: Dashboard Training	Foundation
1264	Introduction to Data Science, Machine Learning & AI using Python Training	Foundation
1274	Data Visualization with Python Training	Intermediate
1257	Advanced Tableau Training	Advanced
8645	Power BI: Administrator in a Day	Advanced
8646	Power BI: Advanced Data Modeling and Shaping	Advanced
8648	Advanced Visualization with Power BI	Advanced
8650	Power BI: Developer in a Day	Advanced
8651	Hands-On Paginated Reports with Power BI	Advanced

Course #	Machine Learning Engineer/Enterprise Architect/Machine Learning Researcher	Level
1263	Applied Data Science with Python and Jupyter	Foundation
1270	Modern Deep Learning Techniques using TensorFlow	Foundation
1255	Introduction to Decision Analysis	Foundation
1264	Introduction to Data Science, Machine Learning & AI using Python Training	Foundation
1265	Fundamentals of Statistics for Data Science	Foundation
1278	Leveraging Deep Learning for Natural Language Processing Course	Intermediate
1277	Applied Deep Learning with PyTorch	Intermediate

Course #	Data Wrangler/Data Science Programmer	Level
1905	Introduction to Python Training	Foundation
1273	Python Data Wrangling	Foundation
925	Introduction to SQL Course	Foundation
1264	Introduction to Data Science, Machine Learning & AI using Python Training	Foundation
1263	Applied Data Science with Python and Jupyter	Foundation
1270	Modern Deep Learning Techniques using TensorFlow	Foundation
1277	Applied Deep Learning with PyTorch	Intermediate
1906	Advanced Python: Best Practices and Design Patterns	Advanced

**TO LEARN MORE, VISIT LEARNINGTREE.COM/DATASCIENCE
OR CALL 1-800-843-8733**

Learning Tree's Comprehensive Data Science Learning Paths

Course #	Data Engineer/Data Architect/Data Designer/Big Data Developer/IoT Engineer Developer	Level
1273	Python Data Wrangling	Foundation
1263	Applied Data Science with Python and Jupyter	Foundation
1250	Introduction to Big Data Training	Foundation
1279	Azure Synapse Analytics	Intermediate
1261	Building Enterprise Solutions with MongoDB Training	Intermediate

Course #	Framework/Database Administrator	Level
1250	Introduction to Big Data Training	Foundation
1261	Building Enterprise Solutions with MongoDB (Team Training Only)	Intermediate
1279	Azure Synapse Analytics	Intermediate
1266	Apache Kafka: Hands-On Training	Intermediate

Course #	Quantitative Researcher/Data Visualization Designer	Level
1255	Introduction to Decision Analysis	Foundation
1256	Tableau Visual Analytics Training	Foundation
1265	Fundamentals of Statistics for Data Science	Foundation
1264	Introduction to Data Science, Machine Learning & AI using Python Training	Foundation
1263	Applied Data Science with Python and Jupyter	Foundation
1270	Modern Deep Learning Techniques using TensorFlow	Foundation
8649	Power BI: Dashboard Training	Foundation
1278	Leveraging Deep Learning for Natural Language Processing Course	Intermediate
1277	Applied Deep Learning with PyTorch	Intermediate
1257	Advanced Tableau Training	Advanced
8645	Power BI: Administrator in a Day	Advanced
8646	Power BI: Advanced Data Modeling and Shaping	Advanced
8648	Advanced Visualization with Power BI	Advanced
8650	Power BI: Developer in a Day	Advanced
8651	Hands-On Paginated Reports with Power BI	Advanced

Course #	Data Scientist	Level
1264	Introduction to Data Science, Machine Learning & AI using Python Training	Foundation
1905	Introduction to Python Training	Foundation
1265	Fundamentals of Statistics for Data Science	Foundation
1268	Hands-On Introduction to R	Foundation
1277	Applied Deep Learning with PyTorch	Intermediate

TO LEARN MORE, VISIT LEARNINGTREE.COM/DATASCIENCE OR CALL 1-800-843-8733

Learning Tree's Data Science & Analytics experts have designed role-specific learning paths that provide you with the knowledge and skills to implement, manage, and enhance your organization's big data strategy. **Click to view as Interactive Learning Paths ›**

1278	Leveraging Deep Learning for Natural Language Processing Course	Intermediate
1269	Time Series Analysis Using R	Advanced
Course #	**Data Analyst**	**Level**
1264	Introduction to Data Science, Machine Learning & AI using Python Training	Foundation
1273	Python Data Wrangling	Foundation
1263	Applied Data Science with Python and Jupyter	Foundation
4509	Introduction to Python for Data Analytics	Foundation
1274	Data Visualization with Python Training	Intermediate
1271	Applied Visualization in R	Intermediate
195	Excel Data Analysis Training	Intermediate
2043	CompTIA Data+® Certification Training	Advanced
Course #	**Cloud Specialist**	**Level**
1274	Data Visualization with Python Training	Intermediate
195	Excel Data Analysis Training	Intermediate
Course #	**Management Team**	**Level**
1255	Introduction to Decision Analysis	Foundation
3656	Preparing for a Digital Transformation Initiative	Foundation
1290	Introduction to Data Analytics	Foundation
1291	Introduction to Data Literacy Training	Foundation
1292	Introduction to Data Governance and Assessing Data Maturity	Foundation

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On-Demand Webinars

Data Wrangling with Python

In this on-demand webinar, Learning Tree Data Science Curriculum Dean Chris Mawata explores why Python is the most popular language for revolutionizing data operations with high-level programming, data visualization, machine learning algorithms, and more.

Watch Now ▸

Chris Mawata, Ph.D.,
Learning Tree Data Science Curriculum Dean

Chris has over 35 years of IT experience including 17 years of teaching at the university level and 20 years of training Java, Big Data, and AI. As a Learning Tree instructor, Chris has authored six courses. As a consultant he runs a 20-node cluster on which he has several Big Data frameworks installed. He has published peer-reviewed papers in image processing, artificial intelligence, and pure mathematics.

Implementing End-to-End Machine Learning Lifecycle Workflows on Azure

From pre-processing to learning to deployment - machine learning goes through many phases. In this course, you will learn how developers and data scientists at all skill levels can use Azure Machine Learning for MLOps, Interoperability and Responsible ML in their projects.

Watch Now ▸

John Younie
Featured Learning Tree Data Science Instructor

John is a Military Veteran with over 22 Years of Service. Prior to becoming a dedicated IT Geek, John was an Aircraft Engineer in The Royal Air Force working on multiple aircraft types including the Phantom F4J, Tornado GR1, and GR4 fast jets and the Chinook helicopter. It was the move from Aircraft Engineer to Data Engineer and working on Aircraft Data and Databases that enabled John to focus on all things IT, including Programming (FORTRAN, C++, VB), Database Design and Data Wrangling.

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