

MACHINE LEARNING SPECIALIST

Certification




Arcitura[®]
CERTIFIED
Machine Learning
Specialist

 Pearson | VUE

 OnVUE  Arcitura On-Site
EXAM PROCTORING

 acclaim  Credly



The Next-Gen IT Academy from Arcitura is dedicated to providing an ever-growing variety of training courses and accreditations in contemporary technologies and fields of practice within the IT industry. Important and modern innovations that are redefining the IT landscape and that have reached a sufficient state of maturity are researched and documented into sets of courses that form the basis for formal certifications.

TABLE OF CONTENTS



04

Training & Certification //////////////

05

Exam ML90.01 //////////////

06

Module 1:
Fundamental Machine Learning //////////////

08

Module 2:
Advanced Machine Learning //////////////

10

Module 3:
Machine Learning Lab //////////////

12

Arcitura Certification Programs //////////////

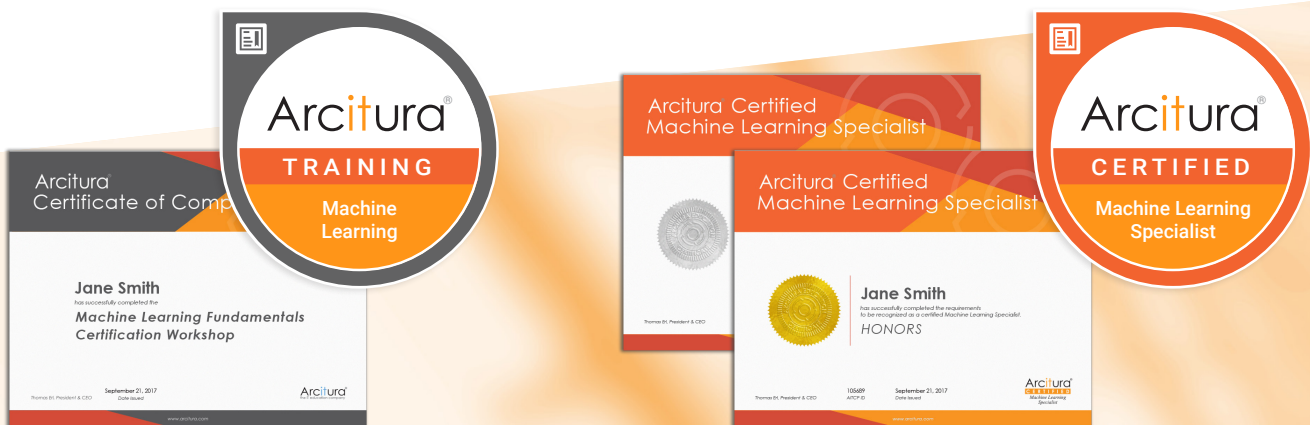


TRAINING & CERTIFICATION

The Machine Learning Specialist track is comprised of three courses that develop skills in Machine Learning practices, models and algorithms, as well as Machine Learning systems that can perform a range of data analysis processing tasks. The final course module consists of a series of lab exercises that require participants to apply their knowledge of the preceding courses in order to fulfill project requirements and solve real world problems. Completion of these courses as part of a virtual or on-site workshop results in each participant receiving an official digital Certificate of Completion, as well as a digital Training Badge from Acclaim/Credly.

To achieve the Machine Learning Specialist Certification, Exam ML90.01 must be completed with a passing grade. A Certified Machine Learning Specialist understands how and where Machine Learning techniques are best utilized to produce business value. Machine Learning algorithms and system design are of second nature to the Certified Machine Learning Specialist, who further possesses in-depth knowledge of model learning approaches, analysis practices and patterns. Those who achieve this certification receive an official digital Certificate of Excellence, as well as a digital Certification Badge from Acclaim/Credly with an account that supports the online verification of certification status.

For more information, visit: www.arcitura.com/machinelearning.

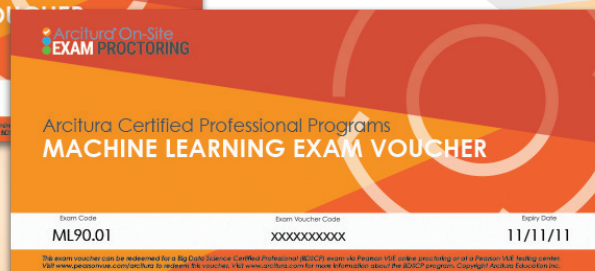
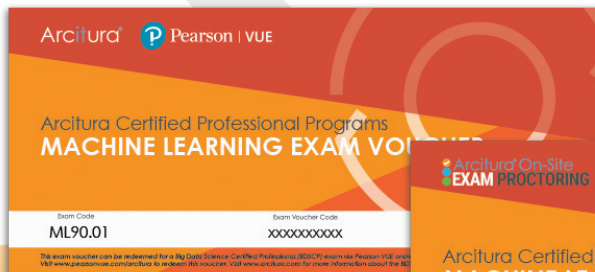




EXAM ML90.01

Exam ML90.01 can be taken worldwide at Pearson VUE testing centers or via Pearson VUE online proctoring. To learn more about scheduling this exam, visit www.pearsonvue.com/arcitura. This exam can also be made available for on-site proctoring as part of eligible public or private workshops. To learn more, visit www.arcitura.com/onsite.

It is recommended that you prepare for Exam ML90.01 by acquiring the Machine Learning Specialist Certification eLearning kit bundle or the printed Machine Learning Specialist Certification study kit bundle or by attending an instructor-led workshop that includes the Machine Learning Modules 1, 2 and 3. The current public workshop calendar can be viewed at www.arcitura.com/workshops. To learn more about having a private workshop delivered at your location, visit www.arcitura.com/private.



Fundamental Machine Learning

MODULE 01



This course provides an easy-to-understand overview of machine learning for anyone interested in how it works, what it can and cannot do and how it is commonly utilized in support of business goals. The course covers common algorithm types and further explains how machine learning systems work behind the scenes. The base course materials are accompanied with an informational supplement covering a range of common algorithms and practices.

The primary topics covered by this course are:

- Machine Learning Business and Technology Drivers
- Machine Learning Benefits and Challenges
- Machine Learning Usage Scenarios
- Datasets, Structured, Unstructured and Semi-Structured Data
- Models, Algorithms, Model Training and Learning
- How Machine Learning Works
- Collecting and Pre-Processing Training Data
- Algorithm and Model Selection
- Training Models and Deploy Trained Models
- Machine Learning Algorithms and Practices
- Supervised Learning, Classification, Decision Tree
- Regression, Ensemble Methods, Dimension Reduction
- Unsupervised Learning and Clustering
- Semi-Supervised and Reinforcement Learning
- Machine Learning Best Practices
- How Machine Learning Systems Work
- Common Machine Learning Mechanisms
- How Mechanisms Are Used in Model Training
- Machine Learning and Deep Learning, Artificial Intelligence (AI)

Duration: 1 Day

MORE INFO

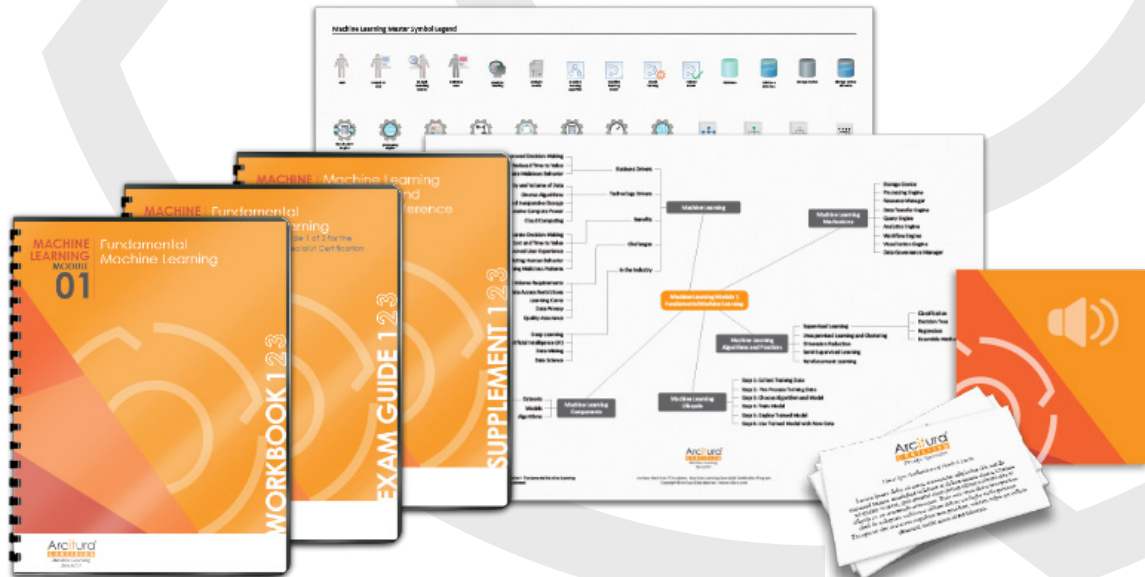
For curriculum information, visit www.arcitura.com/nextgen.



CONTENTS

This course is available as part of an Arcitura Study Kit in full-color printed and eLearning formats. In addition to the base course materials used during training workshops, additional materials designed for self-study purposes are also included.

- Workbook (1 of 3)
- Exam Preparation Guide (1 of 3)
- Machine Learning Algorithms and Practices Reference Supplement
- Symbol Legend Poster
- Mind Map Poster
- Flashcards
- Audio Tutor Recording



eLEARNING

The eLearning kit provides enhanced features for self-study, including custom annotations and commenting, outline-driven navigation, custom bookmarks, multi-document viewing and full-text searching. This environment also enables online and offline access without the need to install any software.



Advanced Machine Learning

MODULE 02



This course delves into the many algorithms, methods and models of contemporary machine learning practices to explore how a range of different business problems can be solved by utilizing and combining proven machine learning techniques.

The following primary topics are covered:

- Data Exploration Patterns
- Central Tendency Computation, Variability Computation
- Associativity Computation, Graphical Summary Computation
- Data Reduction Patterns
- Feature Selection, Feature Extraction
- Data Wrangling Patterns
- Feature Imputation, Feature Encoding
- Feature Discretization, Feature Standardization
- Supervised Learning Patterns
- Numerical Prediction, Category Prediction
- Unsupervised Learning Patterns
- Category Discovery, Pattern Discovery
- Model Evaluation Patterns, Baseline Modeling
- Training Performance Evaluation, Prediction Performance Evaluation
- Model Optimization Patterns
- Ensemble Learning, Frequent Model Retraining
- Lightweight Model Implementation, Incremental Model Learning

Duration: 1 Day

MORE INFO

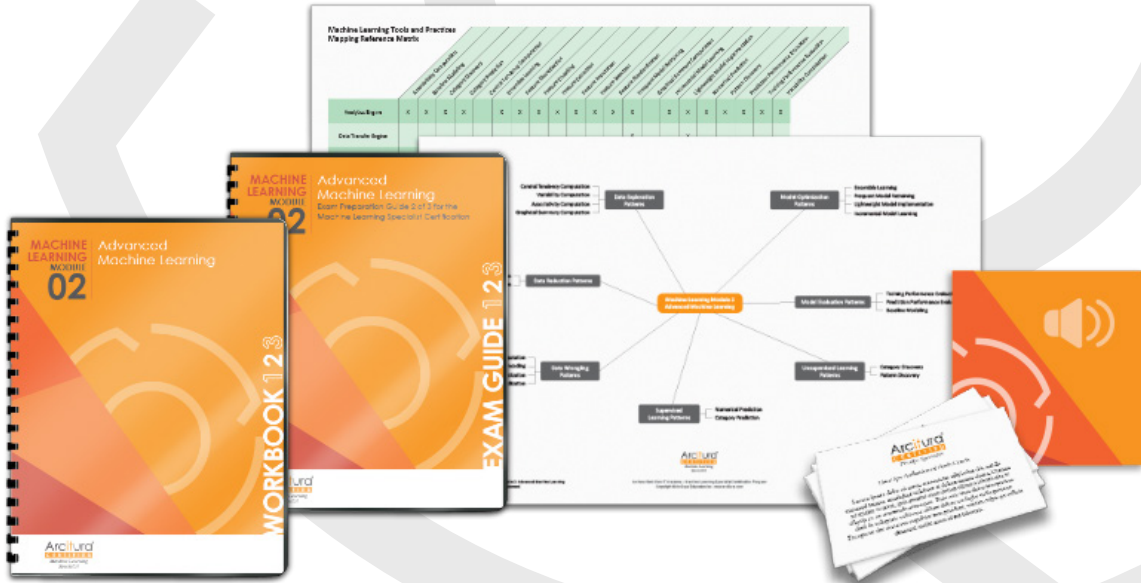
For curriculum information, visit www.arcitura.com/nextgen.



CONTENTS

This course is available as part of an Arcitura Study Kit in full-color printed and eLearning formats. In addition to the base course materials used during training workshops, additional materials designed for self-study purposes are also included.

- Workbook (2 of 3)
- Exam Preparation Guide (2 of 3)
- Mind Map Poster
- Patterns and Mechanisms Mapping Poster
- Flashcards
- Audio Tutor Recording



eLEARNING

The eLearning kit provides enhanced features for self-study, including custom annotations and commenting, outline-driven navigation, custom bookmarks, multi-document viewing and full-text searching. This environment also enables online and offline access without the need to install any software.



Machine Learning Lab

MODULE 03



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This course module presents participants with a series of exercises and problems that are designed to test their ability to apply their knowledge of topics covered in previous courses. Completing this lab will help highlight areas that require further attention and will further prove proficiency in machine learning systems and techniques, as they are applied and combined to solve real-world problems.

For instructor-led delivery of this lab course, the Certified Trainer works closely with participants to ensure that all exercises are carried out completely and accurately. Attendees can voluntarily have exercises reviewed and graded as part of the class completion. For individual completion of this course as part of a study kit, a number of supplements are provided to help participants carry out exercises with guidance.

Duration: 1 Day

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MORE INFO

For curriculum information, visit www.arcitura.com/nextgen.

CONTENTS

This course is available as part of an Arcitura Study Kit in full-color printed and eLearning formats. In addition to the base course materials used during training workshops, additional materials designed for self-study purposes are also included.

- Workbook (3 of 3)
- Exam Preparation Guide (3 of 3)
- Mind Map Poster
- Flashcards
- Audio Tutor Recording



eLEARNING

The eLearning kit provides enhanced features for self-study, including custom annotations and commenting, outline-driven navigation, custom bookmarks, multi-document viewing and full-text searching. This environment also enables online and offline access without the need to install any software.



NEXT-GEN IT ACADEMY CERTIFICATIONS



		Certified DevOps Specialist	Certified Blockchain Architect	Certified Machine Learning Specialist	Certified Artificial Intelligence Specialist	Certified IoT Architect	Certified Containerization Architect
DEVOPS MODULE 01	Fundamental DevOps	●					
DEVOPS MODULE 02	DevOps in Practice	●					
DEVOPS MODULE 03	DevOps Lab	●					
BLOCKCHAIN MODULE 01	Fundamental Blockchain		●				
BLOCKCHAIN MODULE 02	Blockchain Technology & Architecture		●				
BLOCKCHAIN MODULE 03	Blockchain Technology & Architecture Lab		●				
MACHINE LEARNING MODULE 01	Fundamental Machine Learning			●			
MACHINE LEARNING MODULE 02	Advanced Machine Learning			●			
MACHINE LEARNING MODULE 03	Machine Learning Lab			●			
AI MODULE 01	Fundamental Artificial Intelligence				●		
AI MODULE 02	Advanced Artificial Intelligence				●		
AI MODULE 03	Artificial Intelligence Lab				●		
IoT MODULE 01	Fundamental IoT					●	
IoT MODULE 02	IoT Technology & Architecture					●	
IoT MODULE 03	IoT Technology & Architecture Lab					●	
CONTAINERIZATION MODULE 01	Fundamental Containerization						●
CONTAINERIZATION MODULE 02	Containerization Technology & Architecture						●
CONTAINERIZATION MODULE 03	Containerization Technology & Architecture Lab						●

////// To learn more, visit: www.arcitura.com/nextgen



	Certified Cloud Professional*	Certified Cloud Technology Professional	Certified Cloud Architect	Certified Cloud Security Specialist	Certified Cloud Governance Specialist	Certified Cloud Storage Specialist	Certified Cloud Virtualization Specialist
MODULE 01 Fundamental Cloud Computing	●	●	●	●	●	●	●
MODULE 02 Cloud Technology Concepts	●	●	●	●	●	●	●
MODULE 03 Cloud Technology Lab		●					
MODULE 04 Fundamental Cloud Architecture			●				
MODULE 05 Advanced Cloud Architecture			●				
MODULE 06 Cloud Architecture Lab			●				
MODULE 07 Fundamental Cloud Security				●			
MODULE 08 Advanced Cloud Security				●			
MODULE 09 Cloud Security Lab				●			
MODULE 10 Fundamental Cloud Governance					●		
MODULE 11 Advanced Cloud Governance					●		
MODULE 12 Cloud Governance Lab					●		
MODULE 13 Fundamental Cloud Storage						●	
MODULE 14 Advanced Cloud Storage						●	
MODULE 15 Cloud Storage Lab						●	
MODULE 16 Fundamental Cloud Virtualization							●
MODULE 17 Advanced Cloud Virtualization							●
MODULE 18 Cloud Virtualization Lab							●

*The Certified Cloud Professional designation is automatically issued when achieving any other CCP certification. It can also be achieved by receiving passing grades on Exams C90.01 + C90.02.

BIG DATA SCIENCE CERTIFIED PROFESSIONAL (BDSCP)

BIG DATA SCIENCE SCHOOL

Arcitura[®]
CERTIFIED
Big Data Professional

	Certified Big Data Professional*	Certified Big Data Science Professional	Certified Big Data Scientist	Certified Big Data Consultant	Certified Big Data Engineer	Certified Big Data Architect	Certified Big Data Governance Specialist
MODULE 01 Fundamental Big Data	●	●	●	●	●	●	●
MODULE 02 Big Data Analysis & Technology Concepts	●	●	●	●	●	●	●
MODULE 03 Big Data Analysis & Technology Lab		●		●			
MODULE 04 Fundamental Big Data Analysis & Science			●	●			
MODULE 05 Advanced Big Data Analysis & Science			●				
MODULE 06 Big Data Analysis & Science Lab			●				
MODULE 07 Fundamental Big Data Engineering				●	●		
MODULE 08 Advanced Big Data Engineering					●		
MODULE 09 Big Data Engineering Lab					●		
MODULE 10 Fundamental Big Data Architecture						●	
MODULE 11 Advanced Big Data Architecture						●	
MODULE 12 Big Data Architecture Lab						●	
MODULE 13 Fundamental Big Data Governance							●
MODULE 14 Advanced Big Data Governance							●
MODULE 15 Big Data Governance Lab							●

* The Certified Big Data Professional designation is automatically issued when achieving any other BDSCP certification. It can also be achieved by receiving passing grades on Exams B90.01 + B90.02.

To learn more,
visit: www.arcitura.com/bdscp

 Pearson | VUE

 OnVUE

 Arcitura On-Site
EXAM PROCTORING

		Certified SOA Professional*	Certified SOA Analyst	Certified SOA Architect	Certified Microservice Architect	Certified Service Tech Consultant	Certified Service API Specialist	Certified Service Governance Specialist	Certified Service Security Specialist
MODULE 01	Fundamental SOA, Services & Microservices	●	●	●	●	●	●	●	●
MODULE 02	Service Technology Concepts	○		●	●	●	●		●
MODULE 03	Design & Architecture w/ SOA, Services & Microservices	○	●	●				●	
MODULE 04	Fundamental SOA Analysis & Modeling w/ Services & Microservices		●						
MODULE 05	Advanced SOA Analysis & Modeling w/ Services & Microservices		●						
MODULE 06	SOA Analysis & Modeling Lab w/ Services & Microservices		●						
MODULE 07	Advanced SOA Design & Architecture w/ Services & Microservices			●					
MODULE 08	SOA Design & Architecture Lab w/ Services & Microservices			●					
MODULE 09	Fundamental Microservice Architecture & Containerization				●	●			
MODULE 10	Advanced Microservice Architecture & Containerization				●				
MODULE 11	Microservice Architecture & Containerization Lab				●				
MODULE 12	Fundamental Service API Design & Management					●	●		
MODULE 13	Advanced Service API Design & Management						●		
MODULE 14	Service API Design & Management Lab						●		
MODULE 15	Fundamental Service Governance & Project Delivery							●	
MODULE 16	Advanced Service Governance & Project Delivery							●	
MODULE 17	Service Governance & Project Delivery Lab							●	
MODULE 18	Fundamental Security for Services, Microservices & SOA					●			●
MODULE 19	Advanced Security for Services, Microservices & SOA								●
MODULE 20	Security Lab for Services, Microservices & SOA								●

*The Certified SOA Professional designation is automatically issued when achieving any other SOACP certification. It can also be achieved by receiving passing grades on Exams S90.01B + S90.02B or S90.01B + S90.03B.



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