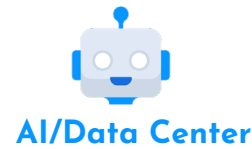


# Artificial Intelligence & Machine Learning (AI/ML) Pathway



## Program Prerequisites

Basic Knowledge of Information Technology



## Program Goal

### Core Courses

CompTIA Security+ | 72 hours

AI in the Data Center | 72 hours

Splunk Core Certified Power User | 72 hours

UiPath Certified RPA Associate (UiRPA) | 72 hours

CompTIA Linux+ | 72 hours

Introduction to Python Programming | 36 hours

**Total Artificial Intelligence and Machine Learning Pathway Clock Hours | 396 hours**

### Contact Us

(571) 577-7890

(703) 554-3827

[www.intellectualpoint.com](http://www.intellectualpoint.com)

[info@intellectualpoint.com](mailto:info@intellectualpoint.com)



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Artificial Intelligence and Machine Learning (AI/ML) and Automation are transforming how we live, work and play. By enabling new technologies, like self-driving cars and recommender systems or improving old ones such as medical diagnostics and search engines, the demand for expertise in AI and Machine Learning is growing rapidly.

**The AI & ML Career Pathway** is a hands-on technical, 396-clock hour program with a cohesive and progressive set of learning outcomes. In this program, students will get a solid introduction to the building blocks and components of artificial intelligence and learn about concepts like algorithms, machine learning and neural networks. Students will also explore how AI is already being used and evaluate problem areas of AI, such as bias. Students will learn how to build applied AI applications such as Natural Language Processing, Computer Vision and Edge Computing. Through hands-on projects, students gain exposure to the concepts of supervised and unsupervised learning, classification, optimization, reinforcement learning, and Blockchain, as well as Crypto Mining. The course will also teach the students how to build automations using UiPath Robotic Process Automation software (RPA). By the end of the program, students emerge with experience in libraries for machine learning, as well as knowledge of automation that enables them to build secure attended and unattended bots on their own.

During the course, students will dig deep into the technology, understand how AI/ML applications work, learn hands on tools and concepts of Cyber Security and Linux based programming, identify processes ripe for automation, and build RPA based process automations.

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# Educational Objectives & Learning Outcomes

The Artificial Intelligence and Machine Learning program provides an excellent path for professionals to specialize in mainstream areas of building AI/ML based applications, automations and solutions. This progression of courses will prepare them for a career in Data Science, Deep Learning and Robotic Process Automation (RPA). Over the course of this program, students will be able to:

- Utilize methods of machine learning and deep learning to build and run analytical models and neural networks
- Apply natural language processing techniques to speech recognition, semantic processing, text classification, and analysis
- Process image data for visual exploration, image classification, remote sensing, and facial recognition
- Utilize automated systems for robotics applications with special emphasis on reinforcement learning and the training of robots to mimic human behavior
- Learn how to automate mundane and repetitive processes using the UiPath RPA Suite of Tools
- Learn hands on cyber security skills to protect the confidentiality, integrity, availability and privacy of AI/ML and automation applications
- Understand how to address the fundamental issues and challenges of ML/DL
- Learn how to effectively use, navigate, and create automation scripts using Linux OS
- Learn and implement IT Service Management (ITSM) best practices, principles, key concepts, and process models
- Learn how to use Document Understanding, Process Mining, Task Capture and AI Center in the Automation Lifecycle

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[info@intellectualpoint.com](mailto:info@intellectualpoint.com)

46175 Westlake Drive

Suite 250

Sterling, VA 20165



## Professional Objectives

- Data Science Expert
- Data Scientist
- Machine Learning Engineer
- Chief Data Officer
- Computer Vision Engineer
- RPA Automation Developer
- Process Automation Specialist
- Blockchain Engineer
- Robotic Process Automation Architect
- Cyber Security Analyst
- Linux System Admin



## Core Courses

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