



Communicate. Collaborate. Create.

AI Workshop details

Trainer	Trainer has 7+ years of experience in building "AI" from scratch.	Team
		Department: ARTIFICIAL INTELLIGENCE
		Point Person: Sudheer
Bootcamp	<ul style="list-style-type: none">• Workshop for 2 days• Workshop for 3 days• Workshop for 5 days	Contact Details
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Curriculum for 2 days workshop

Topic

Day 1

1. Introduction to Artificial Intelligence: Overview of AI, its applications, and its impact on various industries.
2. Machine Learning Basics: Understanding the fundamentals of machine learning, including supervised and unsupervised learning.

3. Data Preparation: Exploring data preprocessing techniques, feature engineering, and data visualization.
4. Machine Learning Algorithms: Introduction to popular machine learning algorithms such as linear regression, logistic regression, decision trees, and support vector machines.
5. Hands-on Exercise: Implementing a machine learning model using a Python library like

Day 2

1. Neural Networks and Deep Learning: Introduction to neural networks, activation functions, and deep learning concepts.
2. Convolutional Neural Networks (CNN): Understanding CNN architecture and its applications in computer vision tasks.
3. Natural Language Processing (NLP): Introduction to NLP techniques, including text preprocessing, sentiment analysis, and text classification.
4. Hands-on Exercise: Building a simple image recognition or text classification model using deep learning frameworks like TensorFlow or PyTorch.
5. Ethical Considerations and Future of AI: Discussing ethical considerations in AI, bias in algorithms, and the future of artificial intelligence.

Certification

Arc Lab certification	Certification will be provided by the company to individual students and also Merit certificate will be provided to those who performed well in the workshop
Ministry of education	Certification from the central govt will also be provided to add more value to the certificate

Curriculum for 3 days workshop

Topic

Day 1

1. Introduction to Artificial Intelligence: Explaining what AI is and how it is used in everyday life.
2. Fun with Chatbots: Building simple chatbots using block-based programming tools like Scratch or PictoBlox.
3. Creative AI: Exploring AI-generated art and music using tools like Google's Magenta project.

4. AI in Games: Understanding how AI is used in game development and creating AI opponents for simple games.
5. Hands-on Activity: Engaging in interactive AI activities, such as teaching a virtual pet using

Day 2

1. Image Recognition: Introducing image recognition and object detection using tools like Microsoft's Custom Vision.
2. Designing AI Characters: Creating AI characters with personalities using block-based programming tools.
3. Voice Assistants: Exploring voice recognition and building voice-controlled projects with tools like Amazon Alexa or Google Assistant.
4. AI in Storytelling: Using AI tools to generate story ideas and create collaborative storytelling projects.
5. Hands-on Activity: Developing a simple image recognition or voice-controlled project using accessible AI platforms.

Day 3

1. Robotics and AI: Understanding how AI is integrated into robotics and exploring basic robot programming using tools like LEGO Mindstorms or Arduino.
2. AI Ethics and Bias: Discussing the importance of ethical considerations in AI and addressing bias in AI systems.
3. AI Project Showcase: Presenting individual or group projects developed during the workshop to peers, teachers, and parents.
4. Future of AI: Exploring exciting advancements in AI and discussing potential career paths in the field.
5. Recap and Q&A: Reviewing workshop concepts, addressing any questions or concerns, and providing additional resources for continued learning.

Certification

Arc Lab certification

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Ministry of education

Certification from the central govt will also be provided to add more value to the certificate

Curriculum for 5 days workshop

Topic

Day 1

1. Introduction to Artificial Intelligence: Explaining what AI is and its various applications.
2. Fun with Chatbots: Creating interactive chatbots using block-based programming tools like Scratch or PictoBlox.
3. AI in Games: Understanding how AI is used in game development and designing AI opponents for simple games.
4. Hands-on Activity: Engaging in interactive AI activities, such as teaching a virtual pet using reinforcement learning concepts.
5. AI Ethics: Discussing the importance of ethical considerations in AI and promoting responsible use of technology.

Day 2

1. Image Recognition: Introducing image recognition and object detection using tools like Microsoft's Custom Vision.
2. Creative AI: Exploring AI-generated art and music using tools like Google's Magenta project.
3. AI in Storytelling: Using AI tools to generate story ideas and creating collaborative storytelling projects.
4. Hands-on Activity: Developing a simple image recognition project or creating AI-generated artwork.
5. AI and Robotics: Understanding how AI is integrated into robotics and exploring basic robot programming using tools like LEGO Mindstorms or Arduino.

Day 3

1. Voice Assistants: Exploring voice recognition and building voice-controlled projects with tools like Amazon Alexa or Google Assistant.
2. AI and Music: Creating music using AI tools like Jukedek or AI-generated music platforms.
3. AI in Daily Life: Discussing practical applications of AI in everyday scenarios, such as recommendation systems and virtual assistants.
4. Hands-on Activity: Designing a voice-controlled project or composing music with AI assistance.
5. AI Project Planning: Guiding students in brainstorming and planning their own AI projects for the remaining workshop days.

Day 4

1. AI Project Development: Assisting students in developing their individual or group AI projects with personalized guidance.
2. Debugging and Troubleshooting: Teaching problem-solving techniques and helping students overcome challenges in their projects.

3. Hands-on Activity: Continued project development with regular check-ins and feedback sessions.
4. AI Project Refinement: Assisting students in improving and polishing their projects to showcase their best work.

Day 5

1. AI Project Showcase: Presenting individual or group projects to peers, teachers, and parents.
2. Reflection and Feedback: Encouraging students to reflect on their learning journey and providing constructive feedback.
3. Future of AI: Exploring exciting advancements in AI and discussing potential career paths in the field.
4. Recap and Q&A: Reviewing workshop concepts, addressing any remaining questions or concerns, and providing additional resources for continued learning.

Certification

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NOTE: The syllabus is designed to cater to young children, considering their age, cognitive abilities, and engagement level. The workshop duration and topics can be adjusted based on the school's requirements and the specific age group of the participants. The focus is on hands-on activities, creativity, and interactive projects to foster a fun and engaging learning environment, encouraging children to explore the possibilities of AI in a responsible manner.