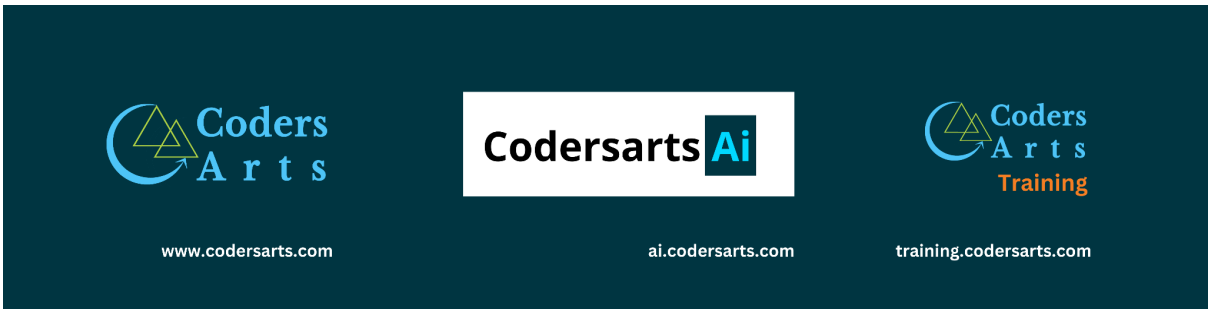
About Codersarts Training



Codersarts Training is a division of Codersarts that provides training services on a variety of programming languages and technologies. The company's team of experienced trainers can help individuals and businesses of all sizes to learn new skills and improve their existing skills.

Codersarts Training offers a variety of services, including:

- **1:1 Training and Tutoring:** Codersarts offers on-demand 1:1 training and tutoring in a variety of programming languages and technologies. This is a great option for students, developers, and anyone else who wants to learn new skills or improve their existing skills.
- **Programming Assignment Help:** Codersarts can help you with your programming assignments, homework, and final year projects. They can also help you with general debugging and problem-solving.
- **Online Courses:** Codersarts offers a variety of online courses in programming languages, web development, and other related topics. These courses are self-paced and can be taken from anywhere in the world.
- **Mentorship:** Codersarts offers mentorship programs to help students and developers advance their careers. Mentors provide guidance and support on a variety of topics, such as skill development, job search, and career planning.

Websites: www.Codersarts.com | www.training.codersarts.com | www.ai.codersarts.com

Contact Details: Email-ID: contact@codersarts.com | Whatsapp: +91 8789 81 6887

- **Corporate Training:** Codersarts offers corporate training programs to help businesses train their employees on new technologies and programming languages. These programs can be customized to meet the specific needs of each business.
- **Live Project Training:** This type of training involves working on real-world projects with experienced instructors. This is a great way to gain practical experience and to learn how to apply your skills to real-world problems.

If you are serious about learning to code and starting your career as a software developer, we highly recommend that you consider live project training. It is a great way to gain practical experience, to learn from experts, and to build your portfolio.

Here is a list of in-demand tech skills for course training

- Programming Languages: Python, Java, JavaScript, C/C++, and Go
- Web Development
- Mobile Development
- Cloud Computing
- Data Science
- Machine Learning
- Artificial Intelligence

Please note that this is just a small sample of the many in-demand tech skills. There are many other skills that are valuable in the tech industry, such as cybersecurity, DevOps, and IT support.

Handwriting Recognition with Machine Learning

About Section:

This is an immersive project-based course designed for individuals interested in tackling the challenging task of handwriting recognition using machine learning techniques. Handwriting recognition has numerous real-world applications, from digitizing historical documents to enhancing human-computer interaction. In this course, you will have hands-on experience to understand the intricacies of processing image and text data, building deep learning models, and implementing advanced techniques like Convolutional Neural Networks (CNNs) and Recurrent Neural Networks (RNNs). By the end of the course, you'll have the skills to develop your handwriting recognition system.

Learning Outcomes:

Upon completing this course, participants will:

1. Gain a solid understanding of the fundamentals of handwriting recognition.
2. Learn how to preprocess image and text data for machine learning.
3. Master the art of splitting data into training and testing sets for model evaluation.
4. Acquire hands-on experience in designing and implementing CNN layers to extract meaningful features from images.
5. Develop an understanding of RNNs, particularly Bidirectional Long Short-Term Memory (Bi-LSTM) layers, and their role in sequential modeling.
6. Explore Connectionist Temporal Classification (CTC) loss for sequence-to-sequence modeling.
7. Implement CTC decoding for transforming model outputs into text.
8. Evaluate the performance of the handwriting recognition model using appropriate metrics.

Websites: www.Codersarts.com | www.training.codersarts.com | www.ai.codersarts.com

Contact Details: Email-ID: contact@codersarts.com | Whatsapp: +91 8789 81 6887

Prerequisites:

- Basic knowledge of machine learning concepts and neural networks.
- Proficiency in Python programming.
- Familiarity with relevant machine learning libraries (e.g., TensorFlow, Keras).
- Access to a Python environment with necessary libraries and GPU support for deep learning.

Libraries and Programming Language Used:

- Python programming language.
- TensorFlow and Keras for deep learning.
- Relevant data manipulation and preprocessing libraries.

Course Syllabus:

Introduction
- Understanding handwriting recognition and its applications.
- Overview of the course structure and goals.

Preprocess Image and Text Data
- Data collection and acquisition.
- Data cleaning and preprocessing for both image and text data.

Splitting the Data into Training and Testing
- Strategies for creating robust training and testing datasets.
- Techniques for data splitting and validation.

Implementation of CNN Layers to Extract Features
- Building Convolutional Neural Network (CNN) layers for image feature extraction.
- Handling image data augmentation.

Implementation of RNN (Bi-LSTM) Layers to the Sequential Model
- Introduction to Recurrent Neural Networks (RNNs).
- Implementing Bidirectional Long Short-Term Memory (Bi-LSTM) layers for sequential modeling.

CTC Loss and CTC Decode

- Understanding Connectionist Temporal Classification (CTC) loss.
- Implementing CTC loss and decoding for sequence-to-sequence tasks.

Evaluation of Model

- Performance metrics for handwriting recognition.
- Model evaluation and fine-tuning.