NUNNARI

LABS

AI Top30

3 Months Intensive Training Program on Machine Learning and Deep Learning

12 weeks | 60 days | 3 hrs./day | 10 Projects

(Only 30 Students)

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ABOUT THE COURSE

Objective

- The aim of the program is to pick 30 candidates, upskill them with the recent AI technologies and take them from beginner to advanced level in 3 months.
- We believe in quality over quantity. The program will have only limited (30) seats so that individual attention can be given to get the best out of every candidate.
- The candidates will collaboratively learn and work as a team.

Program Details

- AI Top30 covers Artificial Intelligence Technologies and Applications, including Machine Learning, Deep Learning, Computer Vision, Natural Language Processing, TensorFlow, etc.
- Course Duration – 12 weeks (5 days/week) for 3 Months.
- 3 hrs. instructor led live online session every day covering Math, Theory and Hands-on coding.
- The course timing is flexible, and the recorded live sessions will be available.
- 10 real-time projects.

Other Benefits

- Involvement in community activities.
- The candidates will be part of the network even post course completion.
- Improve Kaggle and GitHub profile.

Certificate

The candidates will be awarded with a completion certificate from Nunnari Labs.

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CURRICULUM

FOUNDATIONS

Python Basics

- Introduction
- Python Data Types
- Python Flow Control
- Python Functions
- Python OOPS
- Python File Handling
- Installation & environment setup

Python for Data Science

- Pandas
- NumPy
- Matplotlib
- Seaborn
- Plotly

Mathematics for Machine Learning

- Linear Algebra
- Multivariate Calculus
- Descriptive Statistics
- Probability & Distributions

MACHINE LEARNING

Supervised learning

- Linear Regression
- Logistic Regression
- Polynomial Regression

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- Ridge Regression
- Lasso Regression
- k-NN Classification
- Decision Trees
- Support Vector Machines
- Naive Bayes Classifiers

Unsupervised learning

- K-means Clustering
- DBSCAN and Hierarchical Clustering
- Dimension Reduction-PCA
- Linear Discriminant Analysis-LDA

Ensemble Techniques

- Random Forests, Bagging, Boosting
- AdaBoost
- Gradient Boost
- XGBoost

ARTIFICIAL INTELLIGENCE

Introduction to Neural Networks and Deep Learning

- Biological Neurons
- The Perceptron
- Multi Layered Perceptron MLP
- Regression MLPs
- Classification MLPs
- Activation and Loss functions
- Gradient Descent & Back Propagation
- Batch Normalization
- TensorFlow & Keras for Neural Networks
- Hyper Parameter Tuning

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Computer vision

- Introduction to Convolutional Neural Networks
- Convolution, Pooling, Padding & its mechanisms
- Forward Propagation & Backpropagation for CNNs
- CNN architectures like LeNet, AlexNet, VGGNet, InceptionNet & ResNet
- Transfer Learning
- Data Augmentation

NLP Basics (Natural Language Processing)

- Introduction to NLP
- Stop Words
- Tokenization
- Stemming and lemmatization
- Bag of Words Model
- Word Vectorizer
- TF-IDF
- POS Tagging
- Named Entity Recognition

Sequential Models and NLP

- Introduction to Sequential data
- RNNs and its mechanisms
- Vanishing & Exploding gradients in RNNs
- LSTMs - Long short-term memory
- GRUs - Gated recurrent unit
- LSTMs Applications
- Time series analysis
- LSTMs with attention mechanism
- Neural Machine Translation
- Advanced Language Models: Transformers, BERT, XLNet

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Advanced Computer Vision

- Object Detection
- YOLO, R-CNN, SSD
- Semantic Segmentation
- U-Net
- Face Recognition using Siamese Networks
- Instance Segmentation

FACILITATOR

Navaneeth Malingan., BE, MS
Course Instructor, Nunnari Labs
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https://www.linkedin.com/in/nivu/

ADMISSION DETAILS

Eligibility

Applicants should have good coding knowledge in at least one programming language preferably Python. The language used in the course will be Python and for candidates who are not familiar with it, pre-program resources will be shared.

Fee

₹. 30,000 + GST

Payments

Candidates can pay the program fee through Online Bank Transfer

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Refund Policy

Candidates can opt out of the program within a week and the fee will be completely refunded.

Selection Process

1. An online application form needs to be filled in by the candidates.
2. The application will be reviewed, and the eligible candidates will be shortlisted and notified.

Contact Us

Registration form: http://bit.ly/aitop30
Course page: https://nunnarilabs.com/aitop30.html
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