Welcome to ineuron.ai

Full Stack Data Science Nov'21 Tech Neuron

Description:

This is a full stack data science self-paced course with recordings of live mentor-led classes and a full-time one-year internship provided by iNeuron intelligence private limited, where you will learn all the stack required to work in the data science, data analytics, and big data industries, including machine learning operations and cloud infrastructure, as well as real-time industry project and product development with the iNeuron product development team, and you will contribute on various levels.

Start Date:

Doubt Clear Time:

Course Time:

Features:

Full stack Data Science Recorded Lectures

One year of internship Anytime

Online Instructor-led learning: Live teaching by instructors

56 + hands-on industry real-time projects.

500 hours live interactive classes.

Lifetime Dashboard access

Assignment in all the module

What we learn:

Python

Stats

Machine learning

Deep learning

Computer vision

Natural language processing

Data analytics

Big data

Architecture

Databases

Requirements:

System with minimum i3 processor or better

At least 4 GB of RAM

Working internet connection

Dedication to learn

Instructor:

Name:

Sudhanshu Kumar

Description:

Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Name:

krish naik

Description:

Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Name:

Sunny Savita

Description:

I'm an AI enthusiast, graduate in Computer science and engineering. Currently working with iNeuron.ai as a Data Scientist and having 2+ years of experience. I have skills in big data, machine learning, computer vision, Natural language processing. My expertise also includes project design development and implementation with AIOps tools.

>Welcome to the Course:

Python:

>>SQL Part 1

>>SQL Part 2

>>OOPS Discussion

>>Introduction to MongoDB

>>Working with Python & MongoDB Part1

>>Working with Python & MongoDB Part2

>>SQL lite, map, reduce, filter,zip

>Working with Pandas & Numpy:

>>Introduction to Pandas

>>Working with Pandas

>>Pandas Data Analysis Part 1

>>Pandas Data Analysis Part 2

>>Pandas and Numpy

>>Numpy methods

>GUI Programming:

>>GUI Programming with Tkinter

>Working with Graphs & Charts:

>>Introduction to Graphs & Charts

>>Working with Graphs in Python

>API:

>>API Testing

>Python Projects:

>>Flask End-to-End Project

>>Review Scrapper

>>Image Scrapper and deployment on Heroku, AWS and Azure

>Statistics:

>>Introduction to Stats - Day 1

>>Stats - Day 2

>>Extra doubt session

>>Stats - Day 3

>>Stats - Day 4

>>Stats - Day 5

>EDA & Feature Engineering:

>>Introduction to EDA

>>Doubt Clearing session

>>EDA and Feature Engineering

>Machine Learning:

>>Linear Regression

>>Ridge Lasso Regression, Elastic & Logistic Regression

>>Naive Bayes Algorithm and practical implementation of Ridge Lasso and Logistic Reg

>>Logistic Practical, SSVM, SVR

>>Decision Tree Classification

>>Random Forest & SVM

>>Adaboost

>>Gradient Boosting

>>Clustering

>>Introduction to Machine learning

>>Linear Regression

>>Linear Regression live coding demonstration part-1

>>Linear Regression live coding demonstration part-2

>>Project Admission Prediction, Lasso, Ridge & Elastic Net

>>Project deployment in Heroku, Azure & AWS

>>Logistic Regression

>>Logistic Regression implementation

>>Decision Tree

>>Decision Tree Part 2 , Ensemble Tech, Random Forest & Boosting

>>KNN and SVM

>>Decision Tree Practical Implementation

>>Decision Tree Live Coding & Grid Search

>>Grid Search, Bagging Classifier & Random Forest

>>KNN, SVC, SVR & Stacking

>>Clustering

>>Clustering and PCA

>>PCA practical, DBSCAN and Naive Bayes

>>XG Boost, NLTK & TF-IDF

>Machine Learning End to End Project:

>>Machine learning project

>>Machine learning project

>>ML End to End project Pipeline Explanation

>>ML Project Explanation along with GitHub and Docker

>>Machine Learning Pipelines Live Coding Part-1

>>Machine Learning Pipelines Live Coding Part-2

>>2nd July Live Class

>>Machine Learning Pipelines Live Coding Part-2

>>Revision Class

>>Model training, evaluation, and push

>>Model training, evaluation, and push

>>Revision

>PCA in ML:

>>PCA

>>PCA Implementation

>NLP for Machine Learning:

>>NLP in ML

>>Spam Classification

>Time Series Analysis:

>>Introduction to Time Series

>>Time Series Implementation

>Stats:

>>Introduction

>>Different types of Statistics

>>Population vs Sample

>>Mean, Median and Mode

>>Variance, Standard Deviation

>>Sample Variance why n-1

>>Standard Deviation

>>Variables

>>Random Variables

>>Percentiles & quartiles

>>5 number summary

>>Histograms

>>Gaussian - Normal distribution

>>Standard Normal distribution

>>Application Of Zscore

>ML Projects:

>ML Project 1 :- Fault detection

in wafers based on sensor data:

>>Introduction

>>The problem statement and Data Description

>>The Application Flow

>>Ingestion and Validation Part1

>>Validation Part2

>>DB Operations

>>Data Preprocessing

>>Clustering

>>Model Selection and Tuning

>>Prediction

>>Deployment

>ML Project 2 :- Cement Strength Prediction:

>>Introduction

>>The Problem Statement and Data Description

>>The Application Flow

>>Code Intro and Logging

>>Validation and Transformation

>>DB Operations

>>Data Preprocessing

>>Clustering

>>Model Selection and Tuning

>>Prediction

>>Deployment

>ML Project 3 :- Credit Card Defaulters:

>>Introduction

>>The Problem Statement and Data Description

>>The Application Flow

>>Code intro and Logging

>>Validation and Transformation

>>DB Operations

>>Data Preprocessing

>>Deployment

>Time Series:

>>Arima, Sarima, Auto Arima

>>Time series using RNN LSTM, Prediction of NIFTY stock price

>>Time series using RNN LSTM, Prediction of NIFTY stock price

>DL ANN - Introduction:

>>Introduction to Deep Learning

>>Importance of Deep learning

>>Why you should study Deep Learning? (Motivation)

>>ANN vs BNN

>>The first Artificial Neuron

>DL ANN - Perceptron:

>>Overview of Perceptron

>>More about Perceptron

>>Perceptron implementation using python - 1

>>Perceptron implementation using python - 2

>>Perceptron implementation using python - 3

>>Perceptron implementation using python - 4

>>Perceptron implementation using python - 5

>>Perceptron implementation using python - 6

>>Perceptron implementation using python - 7

>>Python scripting & modular coding for Perceptron

>>Python logging basics and docstrings

>>Python packaging, Github actions, and PyPI

>DL ANN -1:

>>Multilayer Perceptron

>>Forward propagation

>>Why we need Activation function?

>>ANN implementation using tf.keras - 1

>>ANN implementation using tf.keras - 2

>>ANN implementation using tf.keras - 3

>>ANN implementation using tf.keras - 4

>>ANN with Callbacks | Tensorboard | Early Stopping | Model Checkpointing

>DL ANN - 2:

>>Vector

>>Differentiation

>>Partial differentiation

>>Maxima and minima concept

>>Gradient descent basics

>>In-depth understanding of Gradient descent with mathematical proof

>DL ANN - 3:

>>Chain rule

>>Backpropagation

>DL ANN - 4:

>>General problems in training Neural Networks

>>Vanishing and Exploding gradients

>>Activation Function Basics

>>Weight initialization

>>Activation Functions - 1

>>Activation functions - 2

>>Activation functions - 3

>>Transfer learning

>>Batch normalization -1

>>Batch normalization -2

>>Batch normalization -3

>DL ANN - 5:

>>Introduction to fast optimizers

>>Momentum optimization

>>NAG

>>Elongated bowl problem | AdaGrad

>>RMSProp

>>Adam

>>Loss functions

>>Regularization

>>Dropout

>Computer Vision - Introduction:

>>Introduction to Course

>>Course Overview

>>Installing Anaconda, Pycharm & Postman

>>Working with Conda Envs

>>Pycharm Introduction

>>Pycharm with Conda

>>Pycharm with venv

>>Pycharm with Pipenv

>Computer Vision - CNN Foundations:

>>Why CNN? Building an Intution for CNN

>>CNN, Kernels, Channels, Feature Maps, Stride, Padding

>>Receptive Fields, Image Output Dimensationality Calculations, MNIST Dataset Explo

>>MNIST CNN Intutiton, Tensorspace.js, CNN Explained, CIFAR 10 Dataset Exploratio

>>Dropout & Custom Image Classification Dog Cat Dataset

>>Deployment in Heroku, AWS, Azure

>>Deployment in GCP,AWS EBS

>Computer Vision - CNN Architectures:

>>LeNet-5

>>LeNet-5 Practical

>>AlexNet

>>AlexNet Practical

>>VGGNet

>>VGG16 Practical

>>Inception

>>Inception Practical

>>ResNet

>>Resnet Practical

>Computer Vision - Image

Classification Hyper Parameter Tuning:

>>Keras Tuner

>>Building a simple model

>>Tuning with Keras Tuner

>Computer Vision - Data Augmentation:

>>What is Data Augmentation?

>>Benefits of Data Augmentation

>>Exploring Papers like RICAP, Random Erasing, Cutout

>>Exploring Augmentor

>>Exploring Roboflow

>Computer Vision - Object Detection Basics:

>>What is Object Detection?

>>Competitions for Object Detection

>>Bounding Boxes

>>Bounding Box Regression

>>Intersection over Union (IoU)

>>Precision & Recall

>>What is Average Precision?

>Computer Vision - Object Detection Architectures:

>>Object Detection Family

>>RCNN

>>RCNN Network Architecture

>>Cons of RCNN

>>FAST RCNN

>>FAST RCNN Network Architecture

>>Cons of FAST RCNN

>>FASTER RCNN

>>FASTER RCNN Network Architecture

>>YOLO

>>YOLO Architecture

>>YOLO Limitations

>>SSD

>>SSD Network

>Computer Vision - Practicals Object Detection using Tensorflow 1.x:

>>Introduction to TFOD1.x

>>Using Google Colab with Google Drive

>>Installation of Libraries in Colab

>>TFOD1.x Setup in Colab

>>Visiting the Model Zoo

>>Inferencing in Colab

>>Inferencing in Local

>>Important Configurations Files

>>Webcam Testing

>Computer Vision - Practicals Training a Custom Cards Detector using Tensorflow1.x:

>>Custom Model Training in TFOD1.x

>>Our Custom Dataset

>>Doing Annotations or labeling data

>>Selection of Pretrained Model from Model Zoo

>>Files Setup for Training

>>Let's start Training in Colab

>>Export Frozen Inference Graph

>>Inferencing with our trained model in Colab

>>Training in Local

>>Inferencing with our trained model in Local

>Computer Vision - Practicals Creating an Cards Detector Web App with TFOD1:

>>Code Understanding

>>WebApp Workflow

>>Code Understanding

>>Prediction with Postman

>>Debugging our Application

>Computer Vision - Practicals Object Detection using Tensorflow 2.x:

>>Introduction to TFOD2.x

>>Using the Default Colab Notebook

>>Google Colab & Drive Setup

>>Visting TFOD2.x Model Garden

>>Inference using Pretrained Model

>>Inferencing in Local with a pretrained model

>Computer Vision - Practicals Training a Custom Chess Piece Detector using Tensorflow2:

>>Custom Model training in TFOD2.x

>>Our Custom Dataset TF2

>>File Setup for Training

>>Let's start Training

>>Let's start Training

>>Stop Training or resume Training

>>Evaluating the trained model

>>Convert CKPT to Saved Model

>>Inferencing using the Custom Trained Model in Colab

>>Inferencing using the Custom Trained Model in Local PC

>Computer Vision - Practicals Creating an Chess Piece Detector Web App with TFOD2:

>>Creating a Pycharm project & Environment Setup TF2

>>Application Workflow

>>Code understanding

>>Testing our App with Postman

>>Debugging our Application

>Computer Vision - Practicals Object Detection using Detectron2:

>>Introduction to Detectron2

>>Detectron2 Colab Setup

>>Visiting Detectron2 Model Zoo

>>Detectron2 Pretrained Model Inferencing

>Computer Vision - Practicals Training a Custom Detector

using Detectron2:

\>\>Detectron2 Custom Training

\>\>Exploring the Dataset

\>\>Registering Dataset for Training

\>\>Let's start Training

\>\>Inferencing using the Custom Trained Model in Colab

\>\>Evaluating the Model

>Computer Vision - Practicals

Creating an Custom Detector

Web App with Detectron2:

\>\>Creating a Pycharm project & Environment Setup Detectron2

\>\>Application Workflow

\>\>Code understanding

\>\>Testing our App with Postman

\>\>Debugging our Application

>Computer Vision - Practicals

Object Detection using YoloV5:

\>\>Introduction to YoloV5

\>\>YoloV5 Colab Setup

\>\>Inferencing using Pre Trained Model

>Computer Vision - Practicals

Training a Custom Warehouse Apparel Detector using YoloV5:

>>Custom Training with YoloV5

>>Exploring the Dataset

>>Doing Annotations or labeling data

>>Setting up Google Colab & Drive

>>Let's start Training

>>Inferencing using the Custom Trained Model in Colab

>Computer Vision - Practicals Creating an Warehouse Apparel Detector Web App with YOLOV5:

>>Creating a Pycharm project & Environment Setup Yolo

>>Application Workflow

>>Code understanding

>>Testing our App with Postman

>>Debugging our Application

>Computer Vision - Image Segmentation:

>>Segmentation Introduction

>>From Bounding Box to Polygon Masks

\>\>What is Image Segmentation?

\>\>Types of Segmentation

\>\>MASKRCNN

\>\>MASK RCNN Architecture

>Computer Vision - MASK RCNN Practicals with TFOD:

\>\>Segmentation with TFOD1.x

\>\>Local Setup MASKRCNN

\>\>Exploring the Dataset

\>\>Data Annotation

\>\>Model Selection

\>\>Files Setup for Training

\>\>Model Training

\>\>Export Frozen Inference Graph

\>\>Model Prediction

>Computer Vision - MASKRCNN practical with Detectron2:

\>\>Introduction to Detectron2

\>\>Detectron2 Colab Notebook

\>\>Exploring the Model Zoo

\>\>Detecron2 Colab Setup

\>\>Custom Training with Detectron2

>>Exploring our Dataset

>>Data Annotation

>>Data Preparation

>>Setup for Training

>>Let's start Training

>>Inferencing using the Custom Trained Model in Colab

>>Evaluating the Model

>Computer Vision - Face Recognition Project:

>>Introduction to Project

>>Requirement Gathering

>>Techstack Selection

>>Project Installation

>>Project Demo

>>Project Workflow

>>Core Components of the Application

>>Data Collection Module

>>Generate Face Embeddings

>>Training Face Recognition Module

>>Prediction Pipeline

>>Entry point of the Application

>>Application Workflow

>>Debugging our Application

>Computer Vision - Object Tracking Project:

>>Object Tracking project

>>Project Installation Tracking

>>Project Demo

>>Code Understanding

>Computer Vision - GANS:

>>Introduction to GANS

>>GAN Architecture

>>GAN PRACTICALS Implementation

>Computer Vision Project - Traffic Vehicle Detection:

>>Introduction to Vehicle Detection project

>>Requirement Gathering

>>Framework Selection

>>Detailed Project Workflow

>>Data Collection Scrap

>>Data Preparation

>>Data augmentation augmenter

>>Data Annotations

>>Model Training

\>\>Creating a Pycharm project & Environment Setup TVD

\>\>WebApp Workflow

\>\>Code Understanding

\>\>Prediction with Postman

\>\>Debugging our Application

\>Computer Vision Project -

Helmet Detection:

\>\>Introduction to Helmet Detection project

\>\>Requirement Gathering

\>\>Techstack Selection

\>\>Detailed Project Workflow

\>\>Data Collection

\>\>Data Preparation

\>\>Data Augmentation

\>\>Data Annotations

\>\>Model Training

\>\>Creating a Pycharm project & Environment Setup HD

\>\>WebApp Workflow

\>\>Code Understanding

\>\>Prediction with Postman

\>\>Debugging our Application

\>Computer Vision Project -

Fashion Apparel Detection:

>>Introduction to Fashion Apparel Detection project

>>Requirement Gathering

>>Techstack Selection

>>Detailed Project Workflow

>>Data Collection

>>Data Preparation

>>Data Augmentation

>>Data Annotations

>>Model Training

>>Creating a Pycharm project & Environment Setup FAD

>>Project Demo

>>WebApp Workflow

>>Code Understanding

>>Prediction with Postman

>>Debugging our Application

**>Computer Vision Project -
Image TO Text OCR:**

>>Introduction to Project

>>Project Installation OCR

>>Project Demo

>>Application Workflow

>>Code Understanding

>>Debugging our App

>>Different OCR's available

>Computer Vision Project - Shredder System:

>>Introduction to Shredder Systems

>>Requirement Gathering

>>Techstack Selection

>>Data Collection

>>Data Augmentation

>>Data Preparation

>>Data Annotation

>>Model Selection from Zoo

>>Model Training

>>Creating a Pycharm project & Environment Setup SS

>>Application Workflow

>>Project Demo

>>Code Understanding

>>Debugging our Application

>>Project Workflow

>>Project Workflow

>Computer Vision Project - Automatic Number plate Recognition with TFOD1.x:

>>Introduction to ANPR Project

>>Requirement Gathering

>>Tech Stack Selection

>>Data Collection

>>Data Augmentation

>>Data Preparation

>>Data Annotation

>>Model Selection From Zoo

>>Model Training

>>Creating a Pycharm project & Environment Setup ANPR

>>Application Workflow

>>Create Google OCR API Key

>>Project Demo

>>Code Understanding

>>Debugging our Application

>NLP Overview:

>>NLP Overview

>>NLP very basic

>NLP Word Embeddings:

>>TFIDF

>>Word Embeddings Part-1

>>Word Embeddings Part-2

>NLP RNN:

>>RNN basic

>>RNN Implementation

>NLP LSTM & GRU:

>>LSTM Introduction

>>GRU

>NLP Attention Based Model:

>>Encoder Decoder and Attention Mechanism

>>Attention All You Need Paper Understanding

>NLP Transfer Learning in NLP:

>>GPT and BERT Model

>>SOTA Model with Paper Discussions

>>Albert & DistillBert Project Discussion

>NLP Project :- Megatron:

>>Megatron Project

>NLP Project:- Brand Measures:

>>Brand Measures Project

>NLP Project:- Text to Speech:

>>Introduction

>>Project Setup Text to Speech

>>Project Demo

>>Code Explanation

>>Project Workflow

>>Prediction with Postman

>>Debugging Application

>NLP Project:- Speech To Text:

>>Introduction

>>Project Setup Speech To Text

>>Project Demo

>>Code Explanation

>>Project Workflow

>>Prediction with Postman

>>Debugging Application

>NLP Project:- Spell Corrector:

>>Introduction

>>Project Setup Spell Corrector

>>Project Demo

>>Code Explanation

>>Project Workflow

>>Prediction with Postman

>>Debugging Application

>NLP Project:- Named Entity Recognition:

>>NER using BERT

>NLP Project:- Machine Translation & Keyword Spotting:

>>Machine Translation

>>Keyword Spotting

>NLP Project:- Keyword Extractor & Summarization:

>>Keyword Extraction

>>Extractive Text Summarization

>NLP project:- Paraphrasing:

>>Rephrase Project

>BigData - Introduction to Big Data and Data Engineering:

>>Big Data Engineering

>BigData - Introduction to Distributed Systems - Hadoop and MapReduce :

>>Big Data Engineering Introduction

>BigData - Map Reduce & YARN:

>>Big Data Hadoop Map Reduce YARN

>>Hadoop Map Reduce Hands On

>BigData - Hive:

>>Apache hive

>BigData - Hive Hands On:

>>Apache hive Hands On

>BigData - NoSQL and Hbase:

>>Big Data HBase

>>Hbase hands On

>BigData - Sqoop:

>>Big Data Sqoop

>>Big Data Sqoop Hands On

>BigData - Spark:

>>Spark - Introduction

>>Big Data Engineering using PySpark- RDDs

>>Spark hands on - RDD

>>Big Data Engineering using PySpark- Core, Internals, Architecture

>>Apache Spark Actions_ Transformations

>>Apache Spark Caching

>>Big Data Engineering using PySpark- Shared Vars , Coalesce Repartition

>>Big Data Engineering using PySpark- Dataframes

>>Spark hands on - Dataframe

>>Spark hands on - Databricks

>>Big Data Engineering using PySpark- Catalyst& Tungsten

>BigData - Spark ML:

>>Big Data Engineering using PySpark- MLLib

>>Spark hands On - Spark ML Lib

>BigData - Spark Streaming:

>>Big Data Engineering using PySpark- Streaming Part 1

>>Big Data Engineering using PySpark- Streaming Part 2

>>Spark hands On - Spark Streaming

>BigData - Kafka:

>>Big Data Kafka

>>Big Data Kafka Hands on

>BigData - Apache Airflow - Workflow Management Platform:

>>Big Data - Airflow

>>Big Data Airflow Hands On

>Big Data Projects:

>>IoT Sensor data pipeline using Kafka-Spark Streaming

>>Product Reccomendation Engine using Kafka-Spark Streaming

>>Short Video App Analytics

>Basic Charts in Power BI:

>>2.0 Basic Charts in Power BI Desktop

>>2.1 Column Chart in Power BI

>>2.2 Stacked Column Chart in Power BI

>>2.3 Pie Chart in Power BI

>>2.4 Donut Chart in Power BI

>>2.5 Funnel Chart in Power BI

>>2.6 Ribbon Chart

>>2.7 Include and Exclude

>>2.8 Export data from Visual

>Working with Maps:

>Cards and Filters:

>Slicers in Power BI:

>>Formatting payal

>Charts - 3:

>>Data Types in Tableau

>>Filled Map

>>Symbol Maps

>>India Map

>>Histogram

>SQL:

>>Database Architecture

>>Introduction to SQL

>>Constraints

>>Data Definition Language (DDL)

>>Data Query Language (DQL)

>>Data Manipulation Language (DML)

>>Joins

>>Import Export

>>Aggregate Functions

>>Order by, Having & Limit Clause

>>String Functions

>>Datetime functions

>>Understanding Regular Expressions

>>Nested Queries

>>Views

>>Stored Procedures

>>WindowsFn

>>Python-SQL Connectivity

>Excel:

>>Introduction to Excel

>>Pre-defined functions

>>Datetime Funtions

>>String functions

>>Mathematical functions

>>Lookup

>>Logical & Error Functions

>>Statistical Functions

>>Images in Excel

>>Excel Formatting

>>Custom Formatting

>>Conditional Formatting

>>Charts in Excel

>>Data Analysis using Excel

>>Pivot Tables

>>Dashboarding in Excel

>>Others

>>What-If Tools - Scenario Manager, Goal Seek