



Department of Information Technology

Academic Year 2020-2021

DJInit.ai

Team Structure

Core Team

Pushkar Bhuse (President)
Parth Kansara (Vice President)
Bhavesh Singh (Vice President)
Rishika Chhabria
Pragnya Konakalla
Smit Malkan
Parth Tank
Dhruv Pithwa

Co-Members(Technical)

Smit Malkan (Head)
Dhruv Pithwa (Head)
Pragnya Konakalla (Head)
Manav Shah
Varun Vora
Shoumik Gandre
Rishab Nevatia
Nishant Dave

Co-Members(Editorial)

Parth Tank (Head)
Rishika Chhabria (Head)
Jainam Dhami
Vivek Vinze
Shivam Kejriwal
Tanvi Shah
Akanksha Mansharamani



Department of Information Technology

Init.ai is a student chapter of the Information Technology Department at Dwarkakdas J Sanghvi College of Engineering. It was founded in 2017 with a mission to educate, inspire and help the students to explore the field of Artificial Intelligence.

This club aims to educate group members about the terms and concepts related to various subfields of AI with the purpose of increasing awareness about past, current and potential future research directions.

We want to make AI more accessible by holding weekly lectures, research talks and producing blog articles that cover anything from ML algorithms, computer vision, NLP and anything in between. The focus will be to equip students with the ability and skills to analyze, design and develop computer systems to use AI to change the world.

Beyond our weekly lectures, we give people the resources to do research in various subfields of AI along with bringing in real-world industrial projects and internship opportunities for our team members.

Our purpose is to facilitate discussion, learning, and interest in the field of artificial intelligence, as well as to serve as a breeding ground for ideas to solve real-world problems.

Details of Lecture Series:

Throughout the year we had conducted numerous sessions for TE and SE classes to enhance their knowledge about AL-ML techniques and initiated a project based learning approach for the first time under the club. Following are the details of the activities conducted in the club.

Lectures

The club conducts lectures every Wednesday and Friday for Sophomores to start their journey towards learning Data Science and Machine Learning. The lectures cover key areas of Statistics, ML Algorithms and Data Mining Techniques. Theoretical as well hands-on coding sessions are undertaken during the lectures to get a practical understanding of the concepts learnt in the class. We conducted lectures on Regression, Classification and Clustering techniques.

Blogs

Key objective of this club is to create awareness among students about the recent developments in the field of AI. We have an editorial team which regularly updates the website with new blogs on a wide variety of topics in the field. Blog goes parallel with lecture series to share the codes and theoretical explanation of every topic explained during the lectures.



Department of Information Technology

Courses & Assignments

Assignments are regularly given to the second year students to test what they have already learnt in the lectures. All the second year students are also given weekly tasks to complete the online courses for certifications and study the concepts that might be missed in the lectures due to time constraints. All the doubts related to the courses and assignments are solved by the senior members during the lectures.

Motivation for global competitions

At Init.AI, we work as a community where we motivate club members to join Kaggle competitions and ML/AI hackathons. During these contests we continuously have brainstorming sessions making sure that the teams are not stuck anywhere and proper guidance is provided by the senior members.

Research

1. The structure of Init.AI is such that the senior mentors guide the research which is carried forward by the junior mentors. Presently, we have three research projects namely;
 - a) Stock Price Forecasting and Analysis
 - b) Text to Images using GANs
 - c) Finding Optimal Movie Shoot Location from Scripts using NLP
 - d) Classification of Hateful Multimodal Content
 - e) Beating Virtual Game Environments using Reinforcement Learning

These projects are in the field of Natural Language Processing, Deep Learning and Computer Vision. We also try to leverage the power of AI in fields other than Engineering. One of our research projects extends in the domain of medical where we will incorporate signal processing and deep learning to ease the process in the medical procedures. Weekly research talks are carried out by the senior members to track the progress of the project and plan the further steps.

Social Media Engagement

To ensure greater outreach, the club created its presence on social media platforms - namely Instagram (@djinit.ai), Facebook and LinkedIn. The content posted on these handles included the blogs written by the Junior Mentors along with the updates from the AI industry. We also held a weekly contest on our Instagram handle to encourage further participation.



Department of Information Technology

Instagram

Search

Log In

Sign Up



djinit.ai [Follow](#)

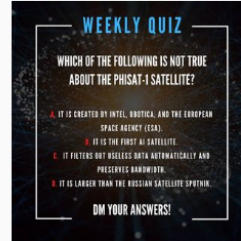
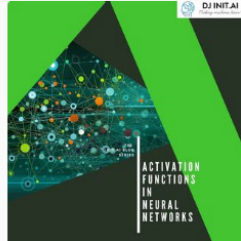
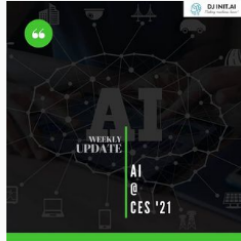
8 posts 52 followers 17 following

DJ Init.AI

The Official Page of DJ Init.AI, the AI Club of D. J. Sanghvi College of Engineering
djinit-ai.github.io/2020/09/27/sigmoid.html

POSTS

TAGGED





Department of Information Technology

Photographs:

```
array([[4, 6, 3],  
       [5, 7, 7]])
```

Subsetting, Slicing, Indexing

Subsetting

```
[ ] #Select the element at the 2nd index  
a = np.array([[1,2,3],[4,5,6],[7,8,9]])  
a[1]  
array([4, 5, 6])
```

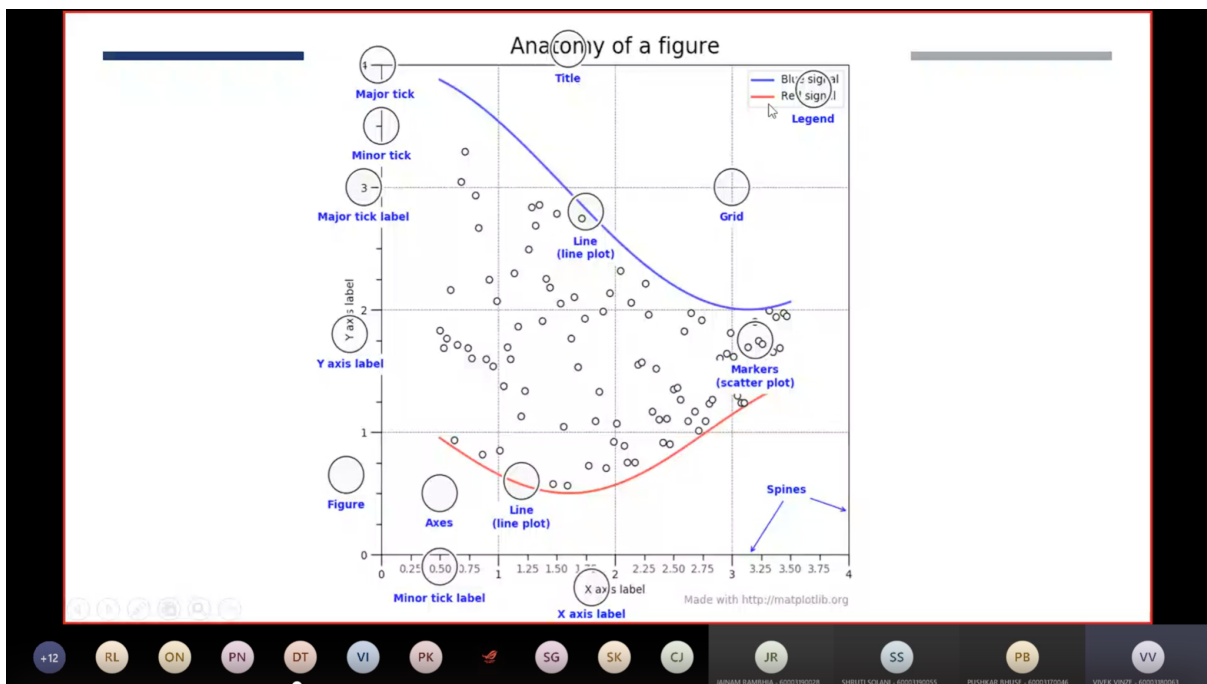
```
[ ] #Select the element at row 1 column 2 (equivalent to a[1][2] )  
a[1,2]  
6
```

Slicing

```
[ ] #Select items at index 0 and 1  
a[0:2]  
array([[1, 2, 3],  
       [4, 5, 6]])
```

```
[ ] #Select items at rows 0 and 1 in column 1  
a[0:2,1]  
array([2, 5])
```

```
[ ] #Select all items at row 0 (equivalent to a[0:1, :])  
a[0]  
array([1, 2, 3])
```



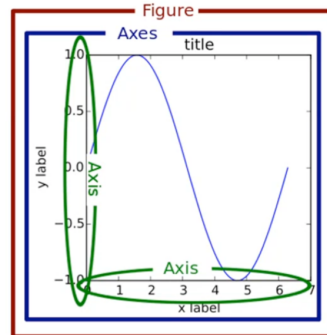


Department of Information Technology

MATPLOTLIB TERMS:

Axes

- Axes is the entire area of a single plot in the figure.
- We can have multiple axes in a single plot, by which we can combine multiple plots into a single figure.



Navigation bar with icons: +12, RL, ON, PN, DT, VI, PK, SG, SK, CJ, JR, SS, PB, VV

The Path Ahead

Bhavesh Singh

- Andrew NG Course on ML
- Various Udemy Courses
- Nptel Course by IIT Madras
- Deep Learning Specialisation
- Universities Lectures on Youtube
- Implementing everything no matter how small and common it is.

Pushkar Bhuse

- Andrew NG Course
- Applied Data Science Specialisation (University of Michigan)
- Kaggle Project
- Deep Learning Specialisation
- Reading Research Papers
- Research Project

Navigation bar with icons: +4, PK, MD, RS, PN, JR, AD, CJ, BT, SS, BS, PB