CSEA IITG.AI ML Talk

Starting with ML

Important Resources to get started -

- 1) IITG.ai summer course <u>link</u>
- 2) Summer Analytics link
- 3) Andrew N.G Course <u>link</u>

Advanced ML courses -

- 1) Deep Learning Specialization <u>link</u>
- 2) Deep Learning Book <u>link</u>

Projects:-

Basic ML projects good for beginners (can try after completing Andrew NG or Summer Analytics or the first 3 weeks of IITG.ai course)

- 1) <u>Titanic Survival prediction</u> and <u>Housing prices prediction</u>
- 2) A Good resource to get started Thirty days of ML
- 3) <u>Tabular Playground Series</u>

Projects Continued:-

After completing courses on DL you can start with projects in these areas:-

<u>CV:-</u>

- 1. Character Recognition on MNIST
- 2. Basic Image Classification (Cat and dog classifier etc)
- 3. Face Recognition
- 4. Object Detection/Image segmentation

Projects Continued:-

NLP:-

1)Text Classification (For example - Sentiment Analysis)

2)Chatbots

3) Neural Machine Translation

4) Image Captioning (requires knowledge of both cv and nlp)

Competitions on ML and DL

- 1) Kaggle, the best place to test your ML/DL expertise
- 2) Hackerearth
- 3) Machinehack
- 4) Analyticsvidhya
- 5) Dockship
- 6) <u>Micontests</u> A Resource for competitions

Internships:-

Summer Research Internships:-

1)<u>SRFP</u>

2)Chubu University(only for ECE EEE)

3)SPARK IIT Roorkee

4)Polytechnique Montreal

5) Research Labs at various colleges (MIDAS, LCS2 at IITD, other IITs, IIITs)

6)SRIP at iit gandhinagar

7) Mailing Professors

8) Through seniors who are working on projects with other researchers

Industrial:-

Off-campus, through connections, hiring challenges, etc

The Perfect Timeline

Basic ML(1week) → Basic ML Projects (1-2 weeks) → DL courses (4-5 weeks) → DL Projects(CV or NLP or Both) (1-2 weeks) → Start Applying for Interns and ML competitions