

# Getting Started with Machine Learning

Date : 19th November 2020 | Speaker : Ayon Roy |  
Event : Webinar by HackSRM 3.0

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# Hello Buddy!

I am **Ayon Roy**

**B.Tech CSE ( 2017-2021 )**

Data Science Intern @ **Lulu International Exchange**, Abu Dhabi  
( **World's Leading Financial Services Company** )

Brought **Kaggle Days Meetup** Community in India for the 1st time

**If you haven't heard about me yet, you might have been living under the rocks. Wake up !!**

# Agenda ( 19-11-2020 )

- How to start Machine Learning
- How to do projects in ML
- How to prepare yourself for ML Internships

**All the Resource links for the discussion will be shared with you at the end of this webinar by me.**



**This Webinar will be more of a discussion , less of a Theoretical Classroom !!**

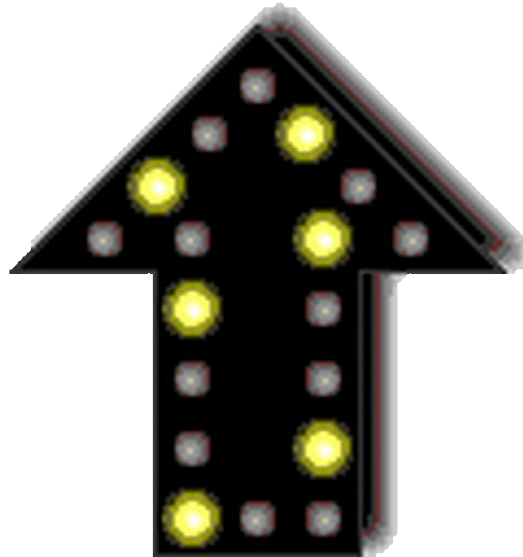
**So be ready to see a lot of images & GIFs !!**

**I ❤️ LESS TEXT**

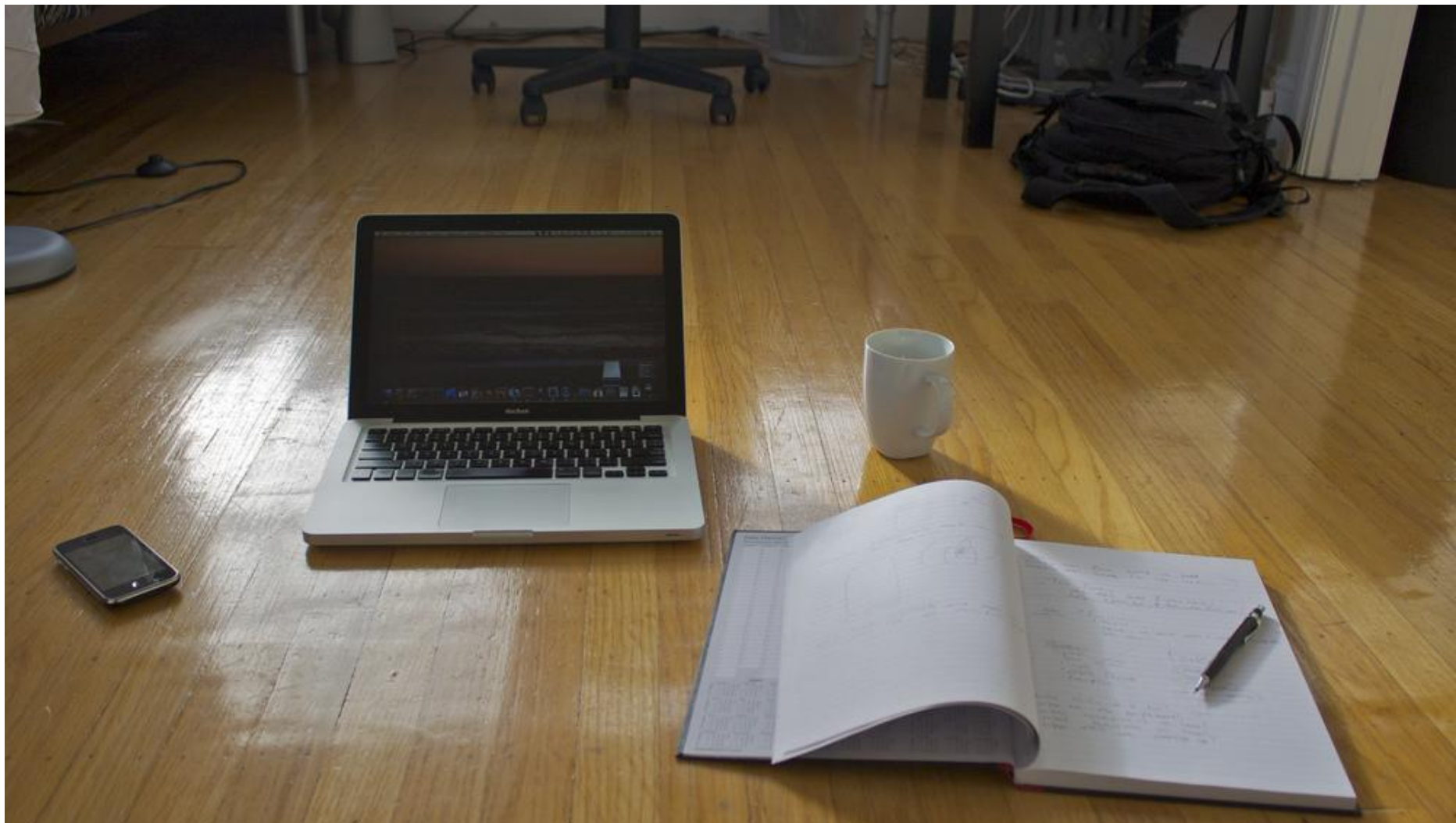
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# How to start Machine Learning



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# Start with Maths for Machine Learning





But **why should I do Maths**  
first for Machine Learning ?

- Week 1 : Linear Algebra [B] <https://www.khanacademy.org/math/linear-algebra>
- Week 2 : Calculus [B] <https://www.youtube.com/playlist?list=PLZHQObOWTQDMsr9K-rj53DwVRMYO3t5Yr> or <https://www.mathsisfun.com/calculus/> ; want theoretical notes , find it at <https://the-learning-machine.com/article/machine-learning/calculus> .
- Week 3 : Probability [B] <https://www.edx.org/course/introduction-probability-science-mitx-6-041x-2>
- Week 4 : Statistics [B] <http://alex.smola.org/teaching/cmu2013-10-701/stats.html>
- Algorithms ( Only if you want to learn proper software development ) [ Highly optional ]  
This is an overview of what the students study as the subject Data Structures & Algorithm . So if you are fluent with this part , you can skip this !! <https://www.edx.org/course/algorithm-design-analysis-pennx-sd3x>

It's not  
Fair!

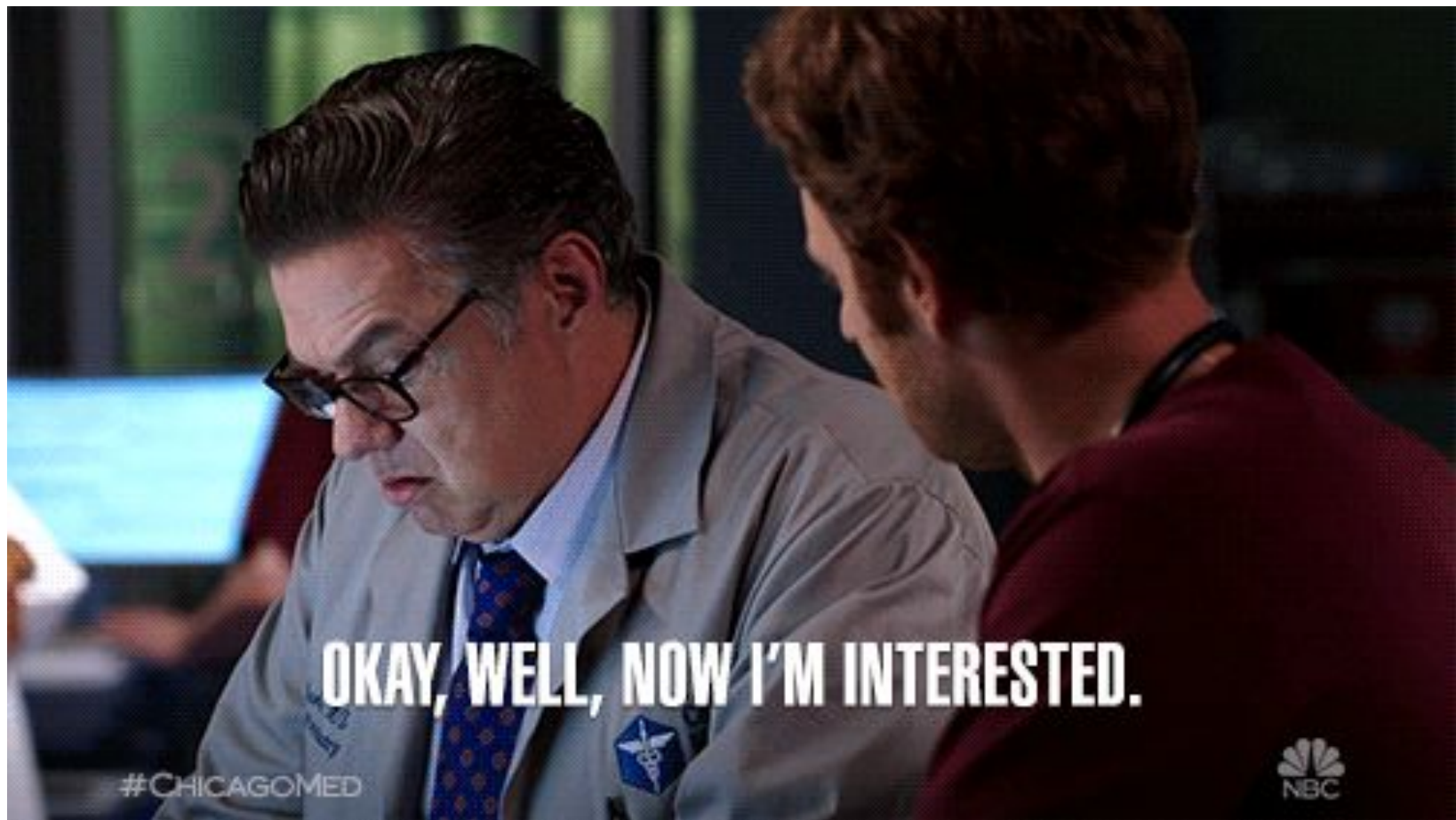


**Start** with Python  
&  
try to **implement** those  
Mathematical Concepts



*Have you been cheating on me?*

**Start exploring Libraries  
& then start Machine  
Learning Courses**



**OKAY, WELL, NOW I'M INTERESTED.**

#CHICAGOMED



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- 
- Introduction to python for data science [B] <https://www.datacamp.com/courses/intro-to-python-for-data-science>
  - Want to dive deeper into Data Visualization & Pre-Processing ? Look into Data Visualization & Pre-Processing section in miscellaneous resources . [ Highly optional ]
  - Want to explore the field of Deep Learning ? See the Deep Learning Section in miscellaneous resources . [ Highly optional ]
  - Want to explore the field of Natural Language Processing [ NLP ] ? See the Natural language Processing Section in miscellaneous resources . [ Highly optional ]
  - See how ML codes are written and made to work at - > <https://github.com/maykulkarni/Machine-Learning-Notebooks> or <https://github.com/GokuMohandas/practicalAI/blob/master/README.md> . [ Highly optional ]
  - Find useful resources here at <https://github.com/ujjwalkarn/Machine-Learning-Tutorials/blob/master/README.md> . [ Highly optional ]

**Don't rush** behind  
completing Courses & add  
them to Resume

**Understand the concepts  
well before starting  
Projects**



Now it's time  
to start with  
**Projects**

**But**

**What projects to start with**

**?**

- Beginners Section [B] : Brush your basic concepts and revise them to start doing projects

Titanic Dataset

Iris Dataset

Stock Price Prediction

Stores Sales Forecasting

Housing Price Prediction

## Guide for Beginner Projects:

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First of all see Below 2 videos to get an idea on how to make projects of Data Science and Machine Learning And then Move to Kaggle for Making your own project.Its is Good if you Make Minimum 2-3 Projects on your own.

- Titanic Survivor : <https://www.youtube.com/watch?v=fS70iptz-XU&t=>
- Credit Card Fraud Detection : <https://www.youtube.com/watch?v=gCWBFyFTxVU>

## Intermediate & Advanced Section

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- Learn libraries like Opencv , Tensorflow , SkLearn

1 ) Natural Language Processing : MNIST Handwritten Digit Classification , Twitter Sentiment Analysis

2 ) Email Spam Classifier

3 ) Fraud Detection System

4 ) Computer Vision : Face Recognition , Face Detection





**Ayon Roy**

Speaker 🍷 Let's talk ML, AI, Data Science, DL, Python 🍷 Catch me @ Hackat...

1w • 🌐



3 Major types of projects you should do if you are just diving into **#datascience**, **#machinelearning**, **#artificialintelligence**. Here are a few pointers :

For Exploratory Data Analysis ( EDA ) Projects -

Practice on the dataset at

- <https://lnkd.in/gztCfy3>
- <https://lnkd.in/gFasqNi>
- <https://lnkd.in/grvF-jc>
- <https://lnkd.in/gPxf5y>
- <https://lnkd.in/gDKuhEf>
- [https://lnkd.in/g\\_SRS7F](https://lnkd.in/g_SRS7F)

For Prediction Modelling Projects -

Practice on the dataset at

- <https://lnkd.in/gQh6SRZ>
- <https://lnkd.in/g5JfbaA>
- <https://lnkd.in/gPG6Wgf>
- <https://lnkd.in/gYBE6DY>

For Data Visualization Projects -

Practice on the dataset at

- <https://lnkd.in/gWZJ3TZ>
- <https://lnkd.in/gih7YDd>
- <https://lnkd.in/gcv2xar>

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" I am a beginner in AI,ML,Data Science & trying to do projects; but not succeeding as I get stuck more often "

Here is my way ahead if you are facing the same.

" Start Simple Projects & Be Motivated "

We all usually want to do the best projects & showcase them in our [resume](#) & hence sometimes end picking up a complex project at the first go. But do understand that while it's very normal to pick complex projects as a beginner, because we can't analyze the scale of project at first go. Picking up a complex project at a first sight may demotivate you as they have a lot of details, requires lot of studies to progress, thus a beginner ends up leaving the project midway & be traumatized. So start your journey with Simpler & Smaller projects as they require comparatively less details & can be achieved over a short period of time, thus helping us to stay motivated & keep doing projects. And as the learning in AI, [machinelearning](#), [datascience](#) never stops, so as we get motivated with completion of small projects; we learn & practice more while increasing the complexity of our upcoming projects. Still waiting to start ? Start today !! All the best !!

# How to prepare yourself for Machine Learning Internships ?

" I am doing Online courses & learning techniques in ML,AI, Data Science ; but still I can't bag an internship 😞 "

Here is something that may boost your strategy to bagging an internship 🚀

.... Usual Process - -

You do online courses to further deepen your knowledge

- You earn a certificate of knowledge
- You go to university - You learn computer science
- You learn data science tools and techniques

--> This is not working so great!

Now, let's follow this process

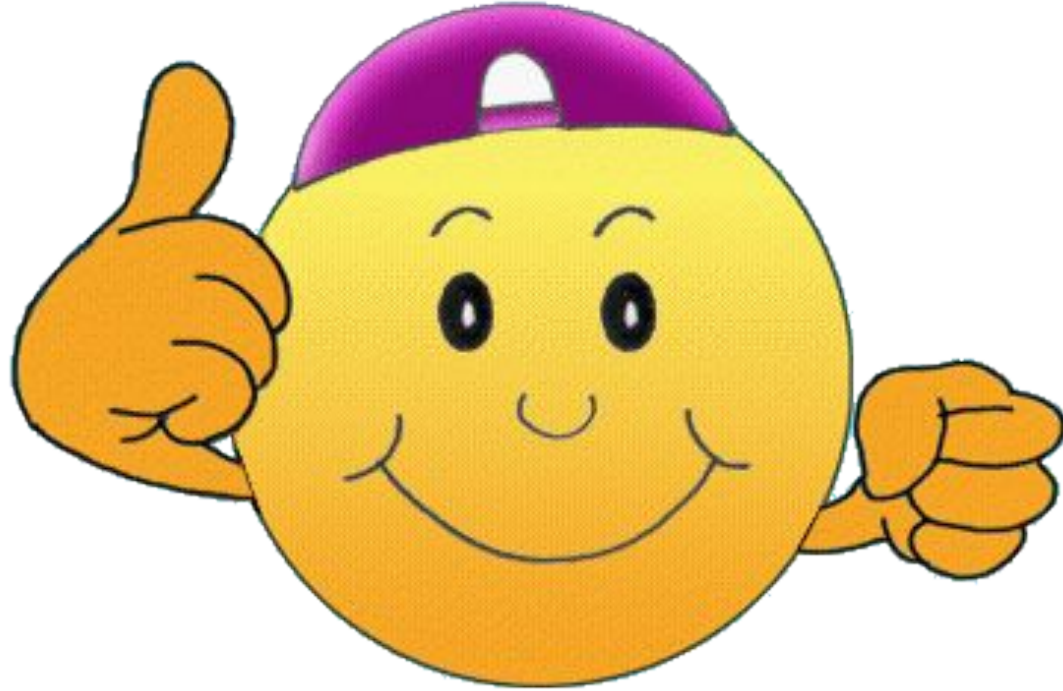
- - You research job postings ( Like [datascience](#) / [machinelearning](#) Internships )
- You become your own intern by doing a project that uses skills and technologies from those job postings
- You create your own certificate of knowledge through documenting/showcasing your work and building a professional profile. [ View mine at <https://ayonroy.ml/> ]
- You apply to those researched jobs. But make sure you are showing off your skills beforehand. And I think you will soon bag an [internship](#) in your domain of interest.

Visit - [AYONROY.ML](https://ayonroy.ml/)

# Get the resources at

1. <https://github.com/ayonroy2000/100DaysOfMLCode>
2. <https://ayonroy.ml/help>
3. <https://www.linkedin.com/in/ayonroy2000/>

**GO FOR IT !**



**GOOD LUCK !**

Let me answer your Questions now.

Finally, it's your time to speak.



# Danke Scheon

Questions ? Any Feedbacks ? Did you like the talk?  
Tell me about it.

If you think I can help you,  
connect with me via

**Email** : [ayonroy2000@gmail.com](mailto:ayonroy2000@gmail.com)

**LinkedIn / Github / Telegram Username** : [ayonroy2000](#)

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