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Topics Covered

#	Topic Name	Training Week#
1	Introduction to Machine Learning (ML), History, and Applications	1
2	Setting up a Computing Environment, Python and Required Libraries.	2
3	Knowledge Foundations to ML (Computing, Statistics, and Mathematics) *	2-3
4	Exploratory Data Analysis (EDA) and Feature Engineering *	4-5
5	Supervised and Unsupervised Learning (concepts)	6
6	Machine Learning Algorithms *	6-7
7	Explaining ML Models and Predictions (introduction) *	7
8	Deep Learning and Neural Networks (introduction) *	8
9	Design and Develop and Deploy ML Solutions *	9-10
10	Capstone Project *	11-12

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Steps of Building ML Model to cover in the Capstone Project

Understand the Problem and the Requirements

Analyze and Prepare Data

Design ML

Train Model

Train Model

Deploy Model into Application

Optional

Train Model

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Capstone Project Guidelines

- Find a Problem that can be solved using ML. It should be simple enough to complete in 2 weeks.
- · Understand Solution Approach
- Design and Develop ML Solution (Data Preparation, Feature Engineering, Build ML Models)
- Evaluate Models and Select the Best Model
- · Make the solution ready to deploy
- Prepare Report (4-6 pages)
 - Introduction (Define Problem)
 - Data
 - Methodology (Solution Approach, Tools used)
 - Results
 - Conclusion
 - Discussion
- Prepare Presentation Slides (10 slides max)
- Publish work to GitHub
 - · Data Preprocessing, Model Building and Evaluating Notebooks
 - Repor
 - Slides
- · Video Narration (optional)
 - 5-10 min using the presentation slides

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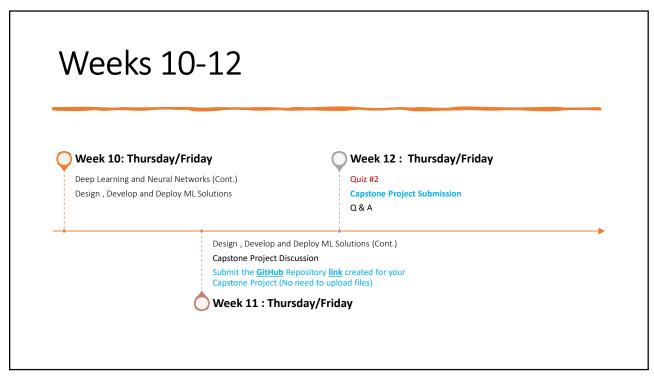


Capstone Project Grading

- Peer Review (?) + instructor Review
- Peer Review Process (?)
 - Your GitHub repository link will be shared with other class members.
 - "Anonymous" evaluation via google forms.
 - Every class member should evaluate at least two others.
 - A Random number will be assigned to each class member should be used when evaluating others (that is how we can track you evaluated how many others).
 - This number will be kept with the instructor only and will not be shared with other class members.
 - Evaluation window will be open for a period of 1 week
- Final Grades will be released by ??

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