Machine Learning team project

Machine Learning lab.
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Important Dates

Schedule	date
Project proposal	November 9
Presentation	December 7
Final report	December 14

Notice 1: Every team has 15 minutes time to present the PowerPoint file
Notice 2: Submit the project proposal, presentation file, and final report by email:
Samaneh.shamshiri@gmail.com
Notice 3: All files should include the names of all group members.

Machine Learning Theory Project Task Guide

Available dataset:
Titanic survivor prediction

-- You can refer to the published codes on the web for writing the code.
-- You should explain the code logically based on your understanding.
-- The final report should include the python script file and the word file. You should add descriptions of codes to the python script file as comments.
-- The presentation file should include your idea, results, insights, etc.
-- Project proposal and final report should be written in word format.
-- For the final report it is much more important to explain why you write the code than the explanation each line of code. (For example; Why the data preprocessing was carried out in such a way, the reason for using the model, etc.)
-- If you decide to modify the proposal after submitting it, you need to consult with professor Sohn or the teaching assistant in advance.

Team groups

Group 1

Name	Student ID
오도현	2018111885
류성민	2018111994
Michaela	2023130557

Group 2

Name	Student ID
김현준	2018113568
정원준	2019111932
Numa	2023130613

Group 3

Name	Student ID
최지환	2019111951
김성현	2019112161
Teo	2023130615

Team groups

Group 4

Name	Student ID
조윤지	2020111815
강민지	2020111843
Titouan	2023130616

Group 5

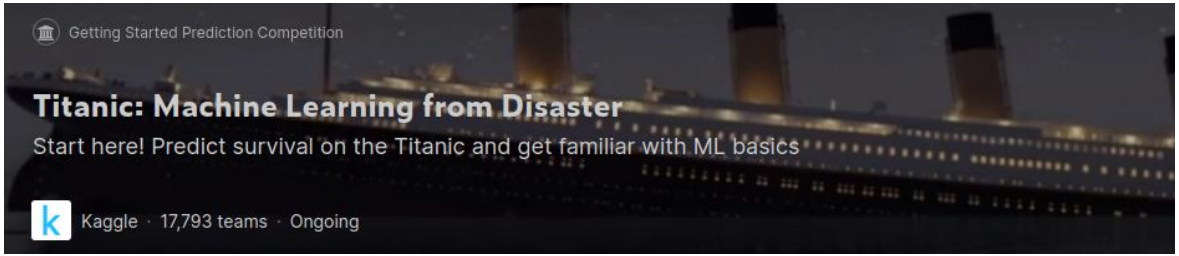
Name	Student ID
이시우	2020111925
조수빈	2021111799
Jananie	2023130617

Group 6

Name	Student ID
2021112143	신하경
2023130655	Liz
2023130784	Kaya

Guide to Kaggle Assignments

- **Titanic survivor prediction (classification problem, binary classification)**
  https://www.kaggle.com/c/titanic



- **Using information such as gender, age, family and boarding status, the class of passengers, and the Binary classification algorithm to predict survivors and deaths.**

Sample of project proposal

ENE7027-01 Spring 2021
Information and Signal Theory Project Proposal

The role of 5G network in managing the impacts of COVID-19 Pandemic

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Description

COVID-19 is the disease caused by a new coronavirus called SARS-CoV-2. The world first learned of this new virus on 31 December 2019, following a report of a cluster of cases of 'viral pneumonia' in Wuhan, China. This kind of pandemic has dramatic effects on both individuals and governments that causes different challenges in a wide range of healthcare, social life and economics. Technology plays an important role relevant to these global scale problems especially in detecting and managing the covid-19 problems by applying AI, Internet of things (IoT), 5G communications, and cloud computing and so on. With the emphasis on social distancing as an effective means of curbing the rapid spread of the infection, telecommunication has supposed as one of the most important e-health services. Therefore, in this paper the role of 5G networks in containing the COVID-19 pandemic has investigated.

5G is the fifth generation mobile networks, which includes these classifications:

- Enhanced mobile broadband (eMBB)
- Ultra-reliable low-latency communications (URLLC)
- Massive machine-type communications (mm)

We highlight the role of 5G network in handling the challenges facing existing networks due to COVID-19 pandemics.

In comparison to 4G, 5G is expected to have better performance in terms of higher speed, lower latency, wider range, increased availability, and more reliability. Together with other concomitant technologies like IoT and AI, 5G Network's technology has the potential to revolutionize the healthcare sector. The commercialization of 5G technology has already transformed its response mechanism to the COVID-19 pandemic by providing better assistance to the frontline staff and facilitating improved virus tracking, patient monitoring, data collection, and analysis. In this paper, we discuss the various ways in which countries can adopt 5G to help improve the efficiency of their efforts in resisting the COVID-19 health crisis.

Keywords: COVID-19, 5G, IoT, AI, E-health

Project schedule

		April 26-30	May 3-7	May 10-14	May 17-21	May 24-28	June 1-4	June 7-11
	Writing Proposal							
Study plan	What will be 5G							
	5G & AI							
	5Gfor digital healthcare							
	5G-&IoT							
	Project presentation PowerPoint							
	Project report							

References

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[10] Agiwal, M., Roy, A., and Saxena, N. "Next generation 5G wireless networks: a comprehensive survey." IEEE Commun. Surv. 2016.