First Meeting

Date: 10/10/2023

Preparation:

Goal – Decide general topic and direction, develop future goals and project skeleton.

Topic keywords: Machine learning, meta-learning (learn to learn), embedded learning (IoT learning), multi-model learning (multimedia)

Challenges:

Meta-learning: low experience on machine learning algorithm, but I have a brief understanding

Embedded learning: Easy to obtain devices, but hard to code (multiple language) (multiple barrier)

Multi-model learning: unable to collect multiple model data.

Question:

While I am interested in machine learning and its algorithm, I am not sure what to produce as an artefact. A new learning algorithm?

Is producing a machine learning algorithm on a specific industry as a prototype enough?

Meeting Notes:

Find a setting for application

<https://www.kaggle.com/>

A topic that can let machine learning replace hard code solution.

Supervised machine learning solution (easy to implement)

Second Meeting

Date: 10/11/2023

Preparation:

Goal: Confirmation on researching field, deciding on project title, producing project plan

Ideas for project:

* Parcel delivery industry: Finding best route for delivery and provide a more accurate prediction for delivering time slot by learning traffic data and customer preference.
  + Application of ML in Post industry <https://postandparcel.info/154062/features/e-commerce-features/the-power-of-ai-and-machine-learning-in-route-planning/>
  + Estimation of Postal Service Delivery Time and Energy Cost with E-Scooter by Machine Learning Algorithms <https://www.mdpi.com/2076-3417/12/23/12266>
* Natural language processing on social media: analyse whether a social media post/comment is positive, negative or neutral.

Project Plan (Due 10/11/2023 4pm):

Requirement:

* Your name
* Supervisor’s name
* Aims and objectives
* Expected outcome/deliverables
* Work plan

Meeting Notes:

Produce a more detailed working plan.

Topic based on route optimization on postal services.

Compare machine learning solution to algorithmic solutions.

GOOD START!

Start looking for data and analysis on a high level (What do you want from your data)

Ask questions to the data, that’s the basic of ML. Learn the data first.

Third Meeting

Date: 13/3/2024

Notes:

Study different approaches of reinforcement learning (Different environments)

Find how to frame the problem: Agents, Environment, States, Action, Rewards.

How the learnt model can be implemented into other problem without starting from scratch.

Meta-Reinforcement learning.