2021-06-25 AI/ML for NFV Meeting Minutes

(OFFLINE - UPDATES ONLY)

Summary Till-Date:

1. Survey of implementation completed.
2. Testbed is assigned - Pod12-Jump
3. Framework : **Acumos (too many issues). Trying ludwig ?**
4. Problem Domain - **Failure Prediction**
5. Clear Definition of Failure Prediction - Ongoing.
6. Existing Models with FP - ARIMA or **RNN - Used to deploy and test.**
7. Enhancement to Existing works on FP - Not yet started
8. Data Gathering: **(Important*)**
   a. Publicly Available: Searching...
   b. Collecting from existing testbeds: WIP

Sl. No.	Topic	Presenter	Notes
1	Framework Deployment Status	Girish L Rohit Singh Rathaur	**Rohit** and **Girish** are looking for the replacement of Acumos. They did not get any result till now because first, they are working on the existing model when the model will be prepared then the final decision will come which framework we should use rather than Acumos.
2	Model Deployment Status	Girish L Rohit Singh Rathaur	There is enough open-source work available on Failure-Prediction. So, according to our problem, our main goal is to make future predictions. We found work on Anamoly in a computer network traffic where the researchers want to predict future traffic in the network of AGH Campus. In their work, they have used **Bandwidth in AGH Campus** dataset and they have used Python SDN controller with Neural Network integration for predicting anomaly in a computer network traffic. In their techniques, they have used LSTM with Convolutional layers so it's the important part according to our work. Now, we are reproducing the work in the current versions of libraries and then prepare a model for our dataset. Status - Ongoing
3	Publicly Available Data Status	Girish L Rohit Singh Rathaur	Have got more publicly available datasets. Publicly available dataset details include - (Dataset Name, Description, Type of Dataset, Uploaded/Maintained by, Link to the website). These datasets are collected and maintained by universities and research groups. Research papers/whitepapers are published in top journals/conferences by considering these datasets for reproducing the results in Failure Prediction, Fault Detection, etc, https://docs.google.com/spreadsheets/d/1QgxlPj8siTLc0ZAggPf1I-GoATqqqOij3GiracwQ3oQ/edit?usp=sharing
4.	Failure Prediction Definition - Status	Girish L Rohit Singh Rathaur	