2021-09-24 AI/ML for NFV Meeting Minutes

Attendees

Sridhar Rao

Beth Cohen

Akanksha Singh

Rohit Singh Rathaur

Kanak Raj

Jahanvi Ojha

Girish L

Timo Hauswirth

Vidyashre

Renuka

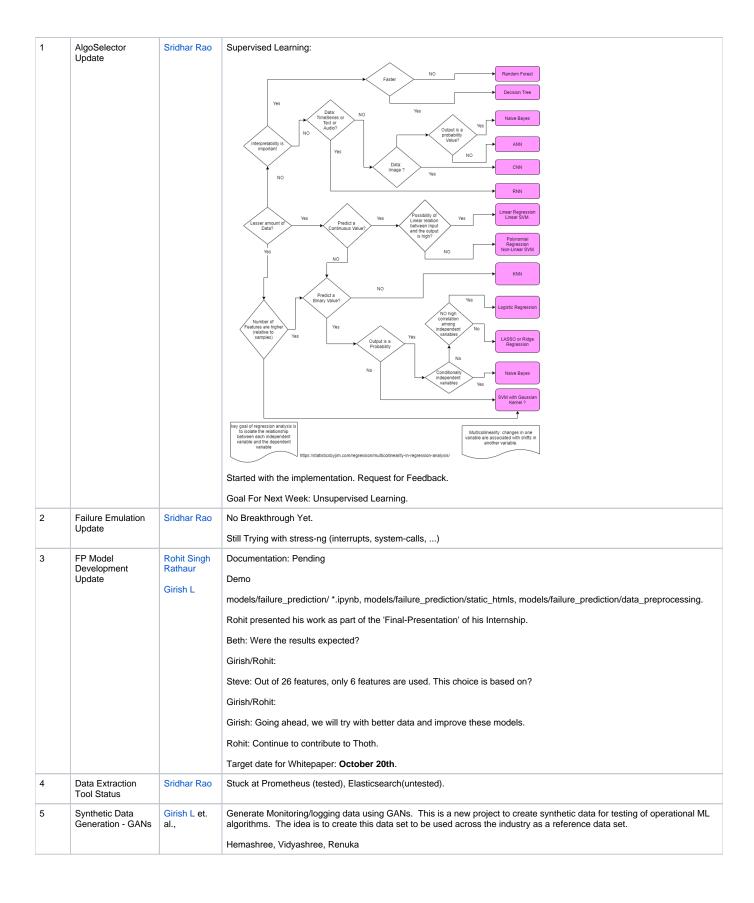Hemashree

Al Morton

Ildiko Vancsa

Sandra Jackson

Sl. No.	Topic	Presenter	Notes

1	AlgoSelector Update	Sridhar Rao	Supervised Learning: Started with the implementation. Request for Feedback. Goal For Next Week: Unsupervised Learning.
2	Failure Emulation Update	Sridhar Rao	No Breakthrough Yet. Still Trying with stress-ng (interrupts, system-calls, ...)
3	FP Model Development Update	Rohit Singh Rathaur Girish L	Documentation: Pending Demo models/failure_prediction/ *.ipynb, models/failure_prediction/static_htmls, models/failure_prediction/data_preprocessing. Rohit presented his work as part of the 'Final-Presentation' of his Internship. Beth: Were the results expected? Girish/Rohit: Steve: Out of 26 features, only 6 features are used. This choice is based on? Girish/Rohit: Girish: Going ahead, we will try with better data and improve these models. Rohit: Continue to contribute to Thoth. Target date for Whitepaper: **October 20th**.
4	Data Extraction Tool Status	Sridhar Rao	Stuck at Prometheus (tested), Elasticsearch(untested).
5	Synthetic Data Generation - GANs	Girish L et. al.,	Generate Monitoring/logging data using GANs. This is a new project to create synthetic data for testing of operational ML algorithms. The idea is to create this data set to be used across the industry as a reference data set. Hemashree, Vidyashree, Renuka

6	Exploration: Openstack Log Analysis	Girish L	Openstack Logs:
			Existing Approaches: **ELK - Kibana + Alarms**.
			Analysis: Common approach is using **NLP**.
			Approach: **Google's BERT** model for Openstack Logs.
			Problems: **Anomaly Detection + Pattern Analysis**
			Deekshita and Rakshita - NLP, Try with Openstack Logs (??)
			Data: https://github.com/logpai/loghub/tree/master/OpenStack
			Use of NLP for Openstack Logs has already been tried: https://www.cs.utah.edu/~lifeifei/papers/deeplog.pdf . This work will be used as a reference.