

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

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