

Student Name

Utkarsh Mittal

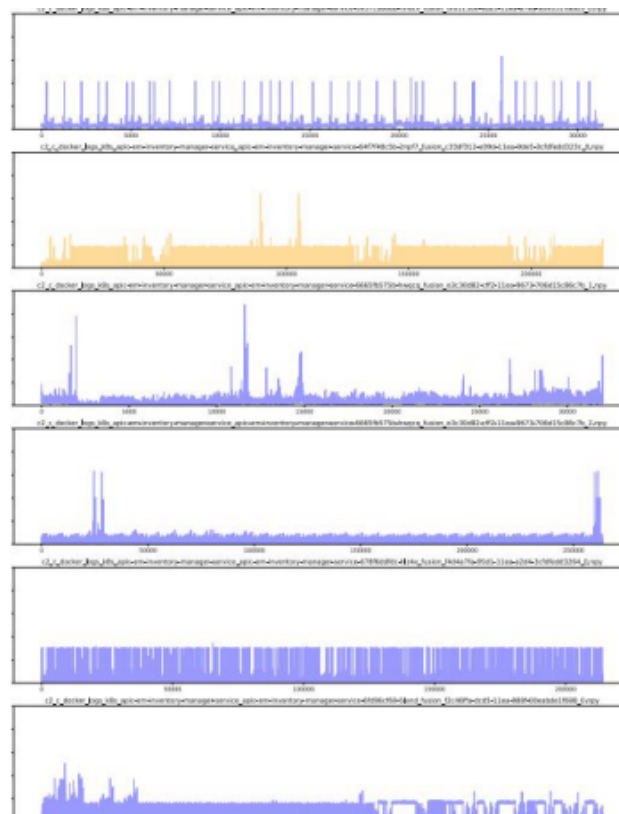
Class of 2021

Capstone Project Background: With the number and complexity of devices going up in our lives, technical customer support is becoming one of the most important service areas for technology companies. However, this function is still not handled very efficiently and Mean Time to Resolve (MTTR) varies from few days to few weeks for many companies. Utkarsh attempted to deploy a Natural Language Processing (NLP) based approach to resolve this. While working with a Top Systems Technology company, he tried to make analysis of log files easier so that MTTR can be brought down. His approach not only helped in identifying if the log file was anomalous but also identified the lines within the log which created that anomaly.

Problem to be solved: To make analysis of log files automated and more efficient so that companies can provide faster resolution to technical support queries of the customers and reduce their response time from a few weeks to a few hours..

Approach taken: Utkarsh deployed NLP to automate the analysis of log files. Key concepts used in his work included Euclidean Distances, Cosine Similarities, and Vectors, Attention based hierarchical Transformer Model. He conducted exhaustive data analysis and deployed these concepts to bring significant improvements in the approach.

Glimpses of the Project:



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1 081109 203807 716 INFO dfs.DataNode$PacketResponder: PacketResponder 1 for block blk_6952295868487656571 terminating
2 081109 203807 722 INFO dfs.DataNode$PacketResponder: PacketResponder 0 for block blk_6952295868487656571 terminating
3 081109 204005 35 INFO dfs.FSNamesystem: BLOCK* NameSystem.addStoredBlock: blockMap updated: 10.251.73.220:50010 is added to blk_712837023768772847 s
4 081109 204015 308 INFO dfs.DataNode$PacketResponder: PacketResponder 2 for block blk_8229193803249959061 terminating
5 081109 204106 329 INFO dfs.DataNode$PacketResponder: PacketResponder 2 for block blk_6670958622368987959 terminating
6 081109 204132 26 INFO dfs.FSNamesystem: BLOCK* NameSystem.addStoredBlock: blockMap updated: 10.251.43.115:50010 is added to blk_3050920587428079149 s
7 081109 204324 34 INFO dfs.FSNamesystem: BLOCK* NameSystem.addStoredBlock: blockMap updated: 10.251.203.80:50010 is added to blk_7888904633180473282 s
8 081109 204453 34 INFO dfs.FSNamesystem: BLOCK* NameSystem.addStoredBlock: blockMap updated: 10.250.11.85:50010 is added to blk_2377150260128098806 si
9 081109 204655 556 INFO dfs.DataNode$PacketResponder: Received block blk_3587508148051953248 of size 67108864 from /10.251.42.84
10 081109 204722 567 INFO dfs.DataNode$PacketResponder: Received block blk_5402003568334525940 of size 67108864 from /10.251.214.112
11 081109 204815 653 INFO dfs.DataNode$DataXceiver: Receiving block blk_5792489080791696128 src: /10.251.30.6:33145 dest: /10.251.30.6:50010
12 081109 204842 663 INFO dfs.DataNode$DataXceiver: Receiving block blk_1724757848743533110 src: /10.251.111.130:49851 dest: /10.251.111.130:50010
13 081109 204908 31 INFO dfs.FSNamesystem: BLOCK* NameSystem.addStoredBlock: blockMap updated: 10.251.110.8:50010 is added to blk_8015913224713045110 s
14 081109 204925 673 INFO dfs.DataNode$DataXceiver: Receiving block blk_-5623176793330377570 src: /10.251.75.228:53725 dest: /10.251.75.228:50010
15 081109 205035 28 INFO dfs.FSNamesystem: BLOCK* NameSystem.addStoredBlock: /user/root/rand/_temporary/_task_208811092030_0001_n_000590_0/part-00590_bll
16 081109 205036 716 INFO dfs.DataNode$PacketResponder: PacketResponder 1 for block blk_30173553821223074 terminating
17 081109 205157 752 INFO dfs.DataNode$PacketResponder: Received block blk_9212264480425680329 of size 67108864 from /10.251.123.1
18 081109 205315 29 INFO dfs.FSNamesystem: BLOCK* NameSystem.addStoredBlock: /user/root/rand/_temporary/_task_208811092030_0001_n_000742_0/part-00742_bll
19 081109 205409 28 INFO dfs.FSNamesystem: BLOCK* NameSystem.addStoredBlock: blockMap updated: 10.251.111.130:50010 is added to blk_45684341826931655 8
20 081109 205412 832 INFO dfs.DataNode$PacketResponder: Received block blk_-570489971266213150 of size 67108864 from /10.251.91.229
21 081109 205632 28 INFO dfs.FSNamesystem: BLOCK* NameSystem.addStoredBlock: blockMap updated: 10.251.74.79:50010 is added to blk_-479486797991710267 s
22 081109 205739 29 INFO dfs.FSNamesystem: BLOCK* NameSystem.addStoredBlock: blockMap updated: 10.251.38.197:50010 is added to blk_876366256493465224 s
23 081109 205742 100 INFO dfs.DataNode$PacketResponder: Received block blk_-5061636720645142679 of size 67108864 from /10.251.70.211
24 081109 205742 100 INFO dfs.DataNode$PacketResponder: Received block blk_-5061636720645142679 of size 67108864 from /10.251.70.211
25 081109 205742 100 INFO dfs.DataNode$PacketResponder: Received block blk_-5061636720645142679 of size 67108864 from /10.251.70.211
26 081109 205740 997 INFO dfs.DataNode$DataXceiver: Receiving block blk_-28342503914935090 src: /10.251.123.132:57542 dest: /10.251.123.132:50010
27 081109 205754 952 INFO dfs.DataNode$PacketResponder: Received block blk_8291449241650212794 of size 67108864 from /10.251.89.155
28 081109 205858 31 INFO dfs.FSNamesystem: BLOCK* NameSystem.addStoredBlock: /user/root/rand/_temporary/_task_208811092030_0001_n_000487_0/part-00487_bll
29 081109 205931 13 INFO dfs.DataBlockScanner: Verification succeeded for blk_-4980916519894289629
30 081109 210022 111 INFO dfs.DataNode$PacketResponder: Received block blk_-5974833545991408899 of size 67108864 from /10.251.31.180
31 081109 210037 108 INFO dfs.DataNode$DataXceiver: Receiving block blk_-5009020203808190378 src: /10.251.199.19:52622 dest: /10.251.199.19:50010
32 081109 210248 1130 INFO dfs.DataNode$PacketResponder: Received block blk_6921674711959888070 of size 67108864 from /10.251.65.203
33 081109 210407 33 INFO dfs.FSNamesystem: BLOCK* NameSystem.addStoredBlock: blockMap updated: 10.250.7.244:50010 is added to blk_5165786360127153975 si
34 081109 210458 1278 INFO dfs.DataNode$DataXceiver: Receiving block blk_2937758977269298350 src: /10.251.194.129:37476 dest: /10.251.194.129:50010
35 081109 210551 32 INFO dfs.FSNamesystem: BLOCK* NameSystem.addStoredBlock: blockMap updated: 10.250.6.191:50010 is added to blk_673825774073966710 siz
36 081109 210637 1283 INFO dfs.DataNode$PacketResponder: Received block blk_-7526945448667194862 of size 67108864 from /10.251.203.80

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