CASE STUDY

SQUARESHIFT

Japanese truck manufacturer gets faster issue resolutions using NLP

95%
NLP accuracy in identifying top historical issues

4 Hours to 5 minutes
Decrease in time spent by quality engineers

20%
Increase in customer satisfaction

CLIENT

The client is a leading OEM truck manufacturer based out of Japan.

AT-A-GLANCE

Challenges

The client uses quality records and remedies to fasten the settlement of quality concerns.

Dealers complain of fresh quality problems with the company and looking for previously reported problems and matching them was a time-consuming process, especially when problems are reported in both English and Japanese.

Solution

- Japanesse language was translated to English and NLP algorithm deployed in Microsoft Azure and integrated with custom UI and backend database.

PROJECT CONTEXT

The client wanted to speed-up the resolution of quality issues by using historical quality and solutions, new issues might be reported by dealers but searching and matching them was hard especially when issues are reported in both English and Japanese.

PROJECT OBJECTIVES

- Decrease the time spent by Quality engineers in searching issues.
- Increase customer satisfaction and better manage quality.
- Resolve issues in both English and Japanese

SOLUTION DELIVERY

- All Japanese language issues were initially translated into English and identified duplicate issues and flagged them as duplicates in the historical issue database.
- Recently reported issue was compared to previous issues using a cutting-edge, internally built BERT algorithm
- The top three matching issues were determined and provided to quality engineers so they may map them to the solutions of an existing issue or develop a new quality issue.
- The custom UI and backend database were coupled with the NLP algorithm that was installed in Microsoft Azure.

TECHNOLOGY STACK

PyTorch | python | Amazon Lambda | Amazon S3 | tableau