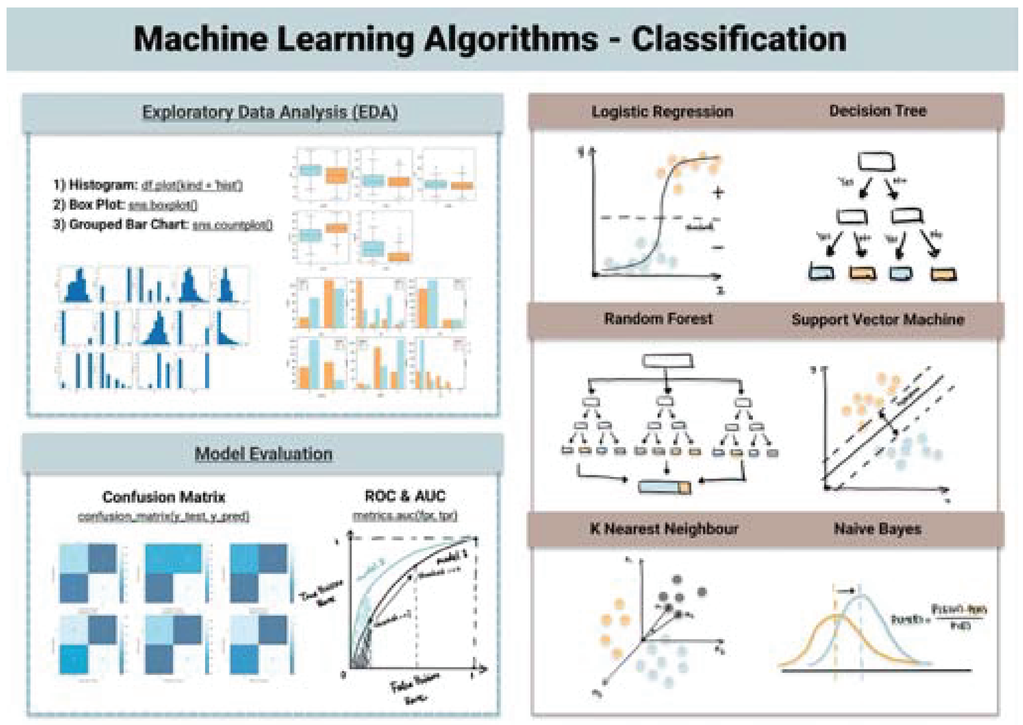
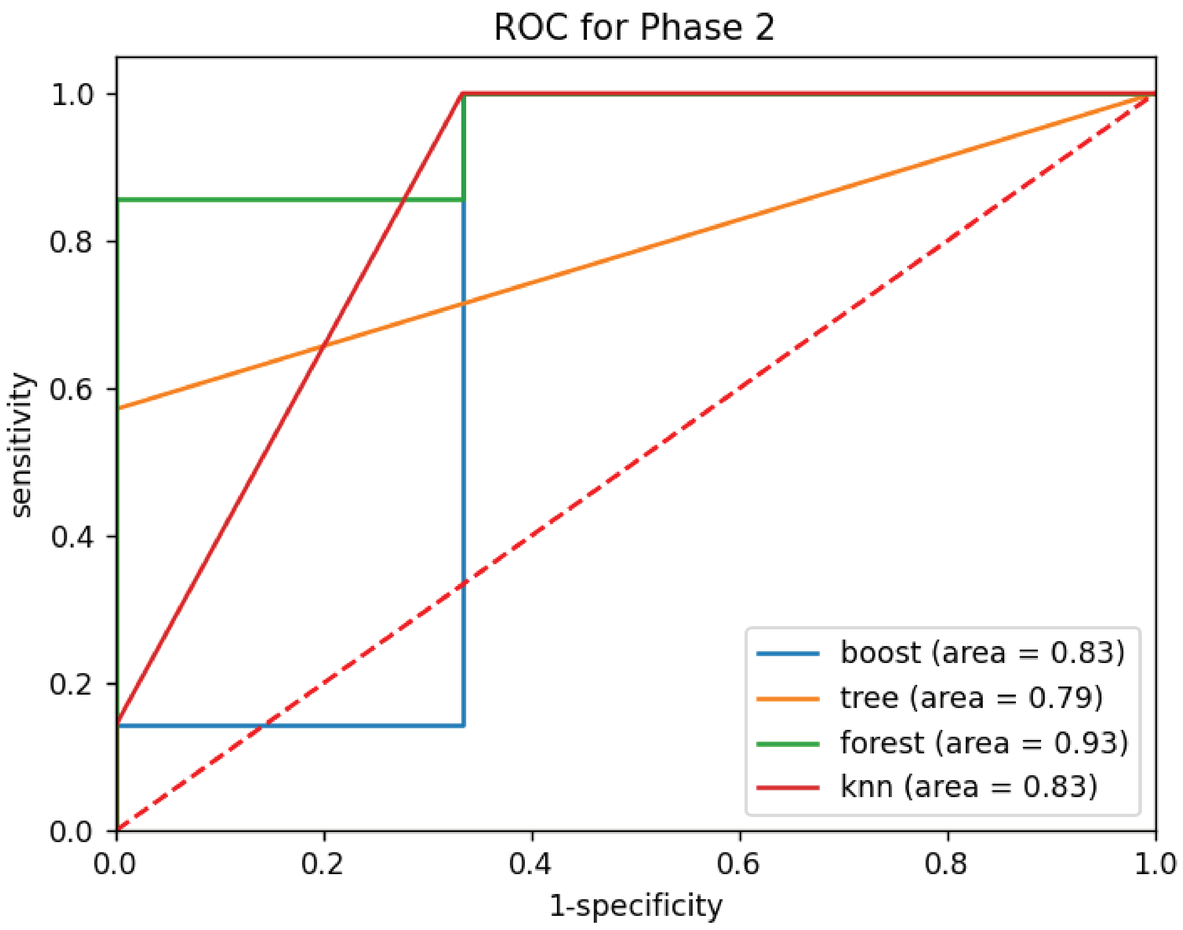
DATA ANALYSIS TO REDUCE MAINTENANCE COSTS FOR LAND PLATFORMS

Project scope

To leverage on data analysis and machine learning models to predict and pre-emptively mitigate breakdowns in military land platforms, thereby optimising operational availability and reducing maintenance costs.





Methodology and Results

- Utilised data analytic techniques to derive relationship between variables
- Trained various machine learning models
- Achieved up to 97.5% prediction accuracy, resulting in optimised equipment availability.

Conclusion and Future Work

This project serves as a proof of concept for the use of data analysis to reduce maintenance costs. Exploration of deep learning techniques with larger datasets and various other military systems, such as naval or air platforms, holds promise for further cost reduction and mission optimisation across varied operational domains.

Member:
Yang An Yi, Hwa Chong Institution
Mentors:
Cheong Yek Meng, Defence Science and Technology Agency
Ong Sir Hong, Defence Science and Technology Agency

YDSP Young Defence Scientists Programme
DSTA Defence Science & Technology Agency
DSO NATIONAL LABORATORIES