

MSA Practicum- Summary of Workload Distribution

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Task	Description	Team Member Contributions
EDA	Initial analysis of data to inform the team of best approaches to solve the task from Clarity.	Seungwon Lee ("SL"): Tableau visualization, creation of project charter with summary document for tracking literatures review High level exploratory data analysis to lead the team discussion. Ramy ElGendi ("RE"): Additional visualization and discussion contributions Marshall Palfenier ("MP"): Outlier analysis, verified subset analysis
Model Development Sprint 1	Evaluation of traditional and advanced time-series methods that best accommodates 154 industries and business activities	SL: Experiments with traditional vs advanced model types (ARIMA vs LSTM), by industry types RE: Error comparison across different methods (ARIMA, SARIMA, Holt-Winter), and introduction of previously unknown method (Prophet) MP: Feature selection analysis and Experiments with smaller 'co2 verified data' set
Midterm Slide Deck	Problem Statement, Goals & Objective agreed with the project sponsor, ClarityAI, to address their needs. Hypothesis and assumptions made in executing Sprint 1 end-to-end time series modeling. Feedback loop with the project sponsor to align expectation for final sprint and outliers	SL: Primary creation of Midterm slide deck, structuralizing project elements and formulating constructive discussion for feedback/continuous improvement loop, main speaker/presenting RE: Slide deck contributions MP: Slide deck contributions, speaking/presenting/slide keeper
Model Development Sprint 2	Baseline method vs selection of final single method to that can be applied to all companies' scope 1 emission mid-range forecasting (2022 to 2030). <i>Align on the population selection.</i> Establish validation method and threshold for outlier and define 'good model'	To be equally distributed amongst the team members.
Final Report	<i>Clear documentation on the tried methods, to share learnings from Practicum to ClarityAI. Single ipynb file for submission and structured repository</i>	To be equally distributed amongst the team members.