Machine learning approach to predicting runway assignment in airports considering congestion and weather conditions.

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Runway is assigned to arriving and departing flights throughout the day considering the level of congestion, weather conditions (mainly wind direction), the level of noise to neighboring residents, among others. In this project we try to develop a classifier with available runways as class given historical data. The data include actual runways assigned in a few major airports in North America and synced weather information. In this project, the student will carefully find a set of features improving the model performance, develop a model that classifies among available runways, and fine-tune the model for higher testing accuracy. The successful candidate will have a strong foundation in exploratory data analysis, feature selection and generation, various machine learning algorithms, and python programming.

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