

# Rain in Australia

Next-day prediction model

By T.J. Kyner



# The Goal

From farmers growing crops to a family planning a weekend vacation to logistical decision making within airlines, **rain is highly influential regarding plans**. An accurate prediction model for whether it will rain can be used in a weather app for the benefit of a **variety of stakeholders**.



Introduction



Data



Model



Next Steps



Conclusion



## Data Source

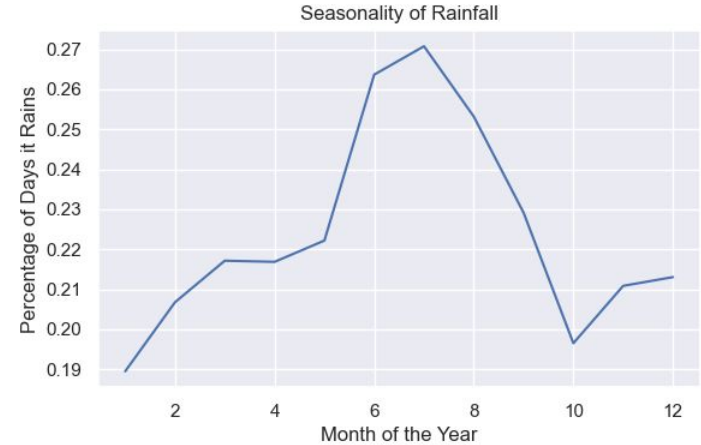
- Downloaded from the **Kaggle** dataset titled “Rain in Australia”
- Original data sourced from the **Australian Bureau of Meteorology’s Daily Weather Observations** website



# Data Features

- Date
- Location
- Temperature\*
- Rainfall
- Evaporation
- Sunshine
- Clouds\*
- Wind\*
- Humidity\*
- Pressure\*

\*Readings at 9AM and 3PM



# Model Results

**86%**

Accuracy of the model

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## Feature Importances



**Location**  
41.7%



**Wind Direction**  
29.2%



**Month**  
7.4%



**Humidity (3PM)**  
6.8%



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## Next Steps

- Further hyperparameter tuning
- Engineering new features such as trailing amount of rain or sunshine
- Collecting additional data from nearby countries (for example, does rain originating in Indonesia or New Zealand have predictive power?)
- Attempting to predict the *amount* of rainfall



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# Thank You!

## Contact Information:



tjkyner@gmail.com



github.com/tjkyner



linkedin.com/in/tjkyner

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- Map of Australia from Wikimedia



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