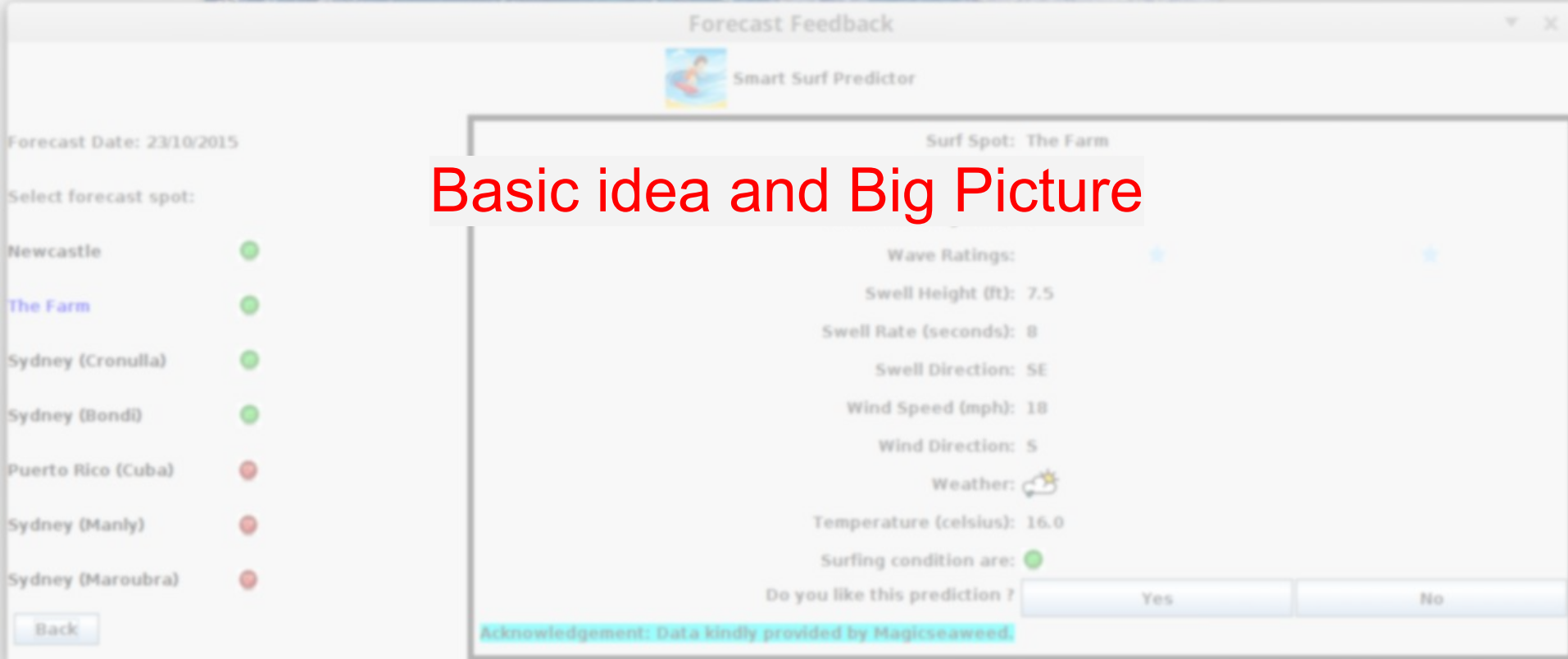
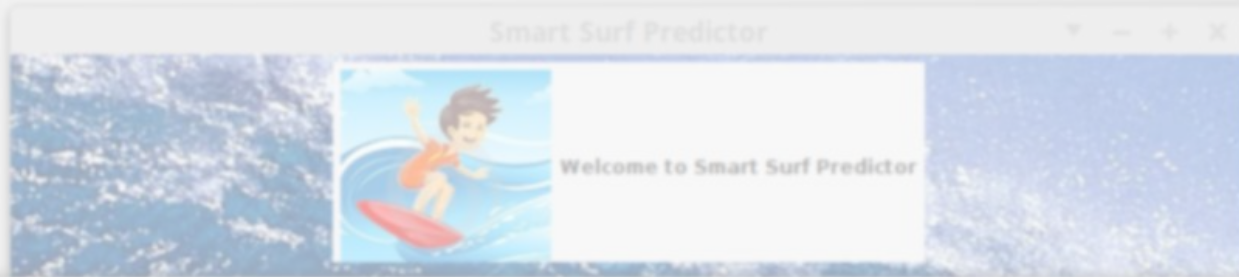


SmartSurfPredictor

Eeswari Avudainathan (12118055), Marcel Bühler (99211688)





❖ Set-Up Wizard

Forecast Date: 23/10/2015

Select forecast spot:

Newcastle

❖ Live Feedback Demo

The Farm

Sydney (Cronulla)

Sydney (Bondi)

Puerto Rico (Cuba)

Sydney (Manly)

Sydney (Maroubra)

Back

A screenshot of the 'Forecast Feedback' window. The window has a title bar and a small icon of a surfer. The main content area is divided into two columns. The left column lists various surf spots, each with a green or red circular indicator to its right. The right column displays detailed forecast information for the selected spot, 'The Farm'. The information includes minimum and maximum wave heights, wave ratings, swell height and rate, swell direction, wind speed and direction, weather conditions, temperature, and surfing conditions. At the bottom, there is a question 'Do you like this prediction?' with 'Yes' and 'No' buttons. A small acknowledgment text is at the very bottom.

Smart Surf Predictor

Surf Spot: The Farm

Minimum Height (ft): 4

Maximum Height (ft): 7

Wave Ratings: ★ ★

Swell Height (ft): 7.5

Swell Rate (seconds): 8

Swell Direction: SE

Wind Speed (mph): 18

Wind Direction: S

Weather: ☀️

Temperature (celsius): 16.0

Surfing condition are: 🟢

Do you like this prediction ?

Yes No

Acknowledgement: Data kindly provided by Magicseaweed.

Why is it so awesome?

It is intelligent



It is independent & autonomous



It is proactive



Additional Features (Big Picture)



- SurfSpotPredictor

- EquipmentPredictor



- TransportPredictor



- SurfBuddyPredictor

Forecast Feedback

Smart Surf Predictor

Surf Spot: The Farm

Minimum Height: 4

Maximum Height: 7

Wave Rate: 1.5

Swell Height: 2.5

Swell Rate (sec): 10

Swell Direction: SE

Wind speed (mph): 18

Wind Direction: S

Weather:

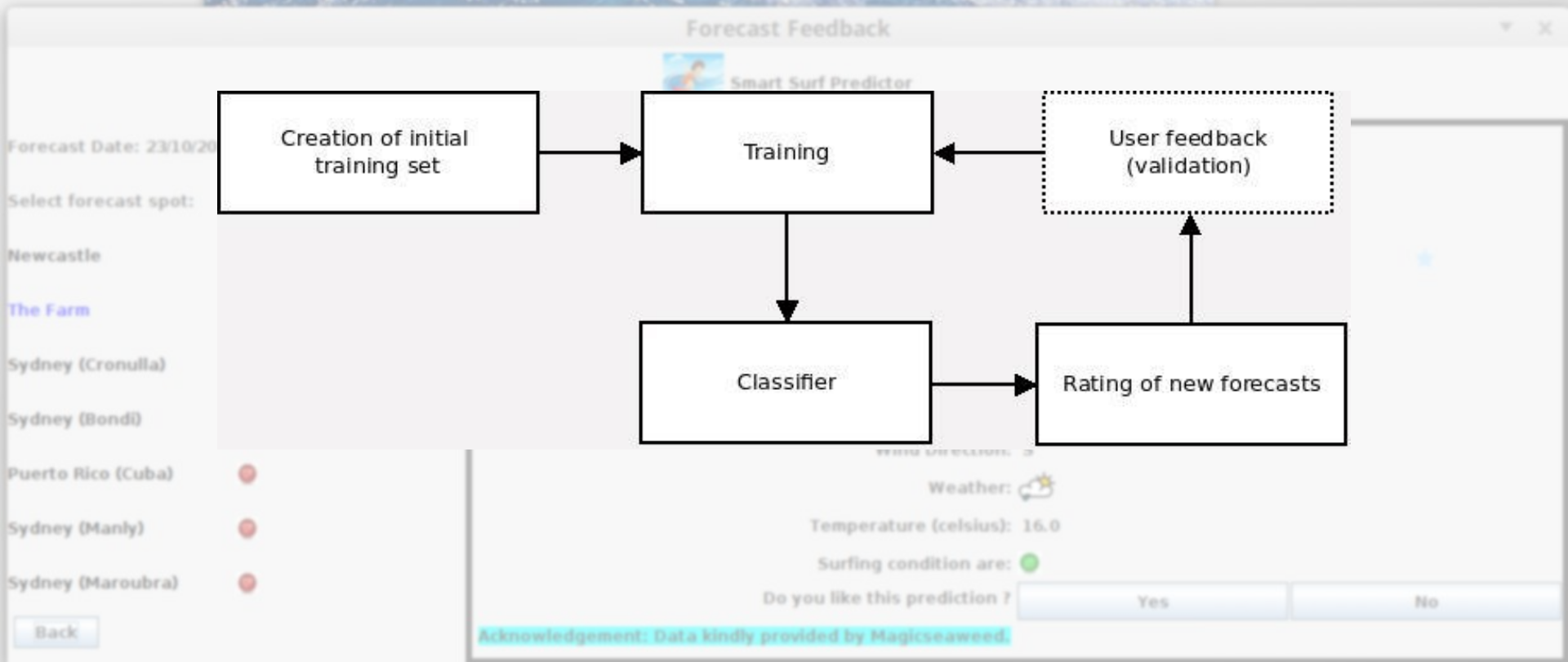
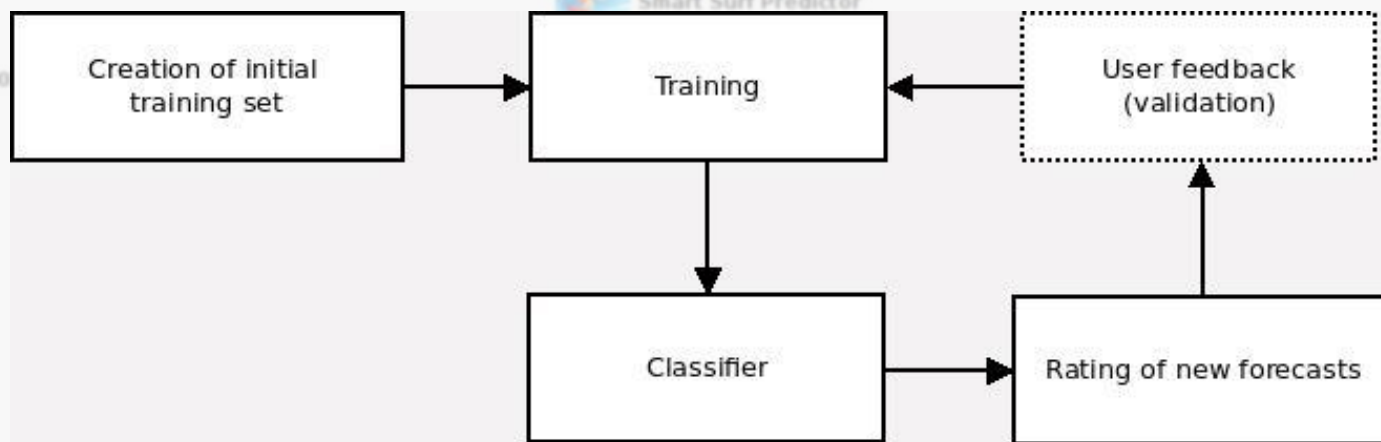
Temperature (celsius): 16.0

Surfing condition are:

Do you like this prediction ?

Acknowledgement: Data kindly provided by Magicseaweed.

The Cycle of Intelligence

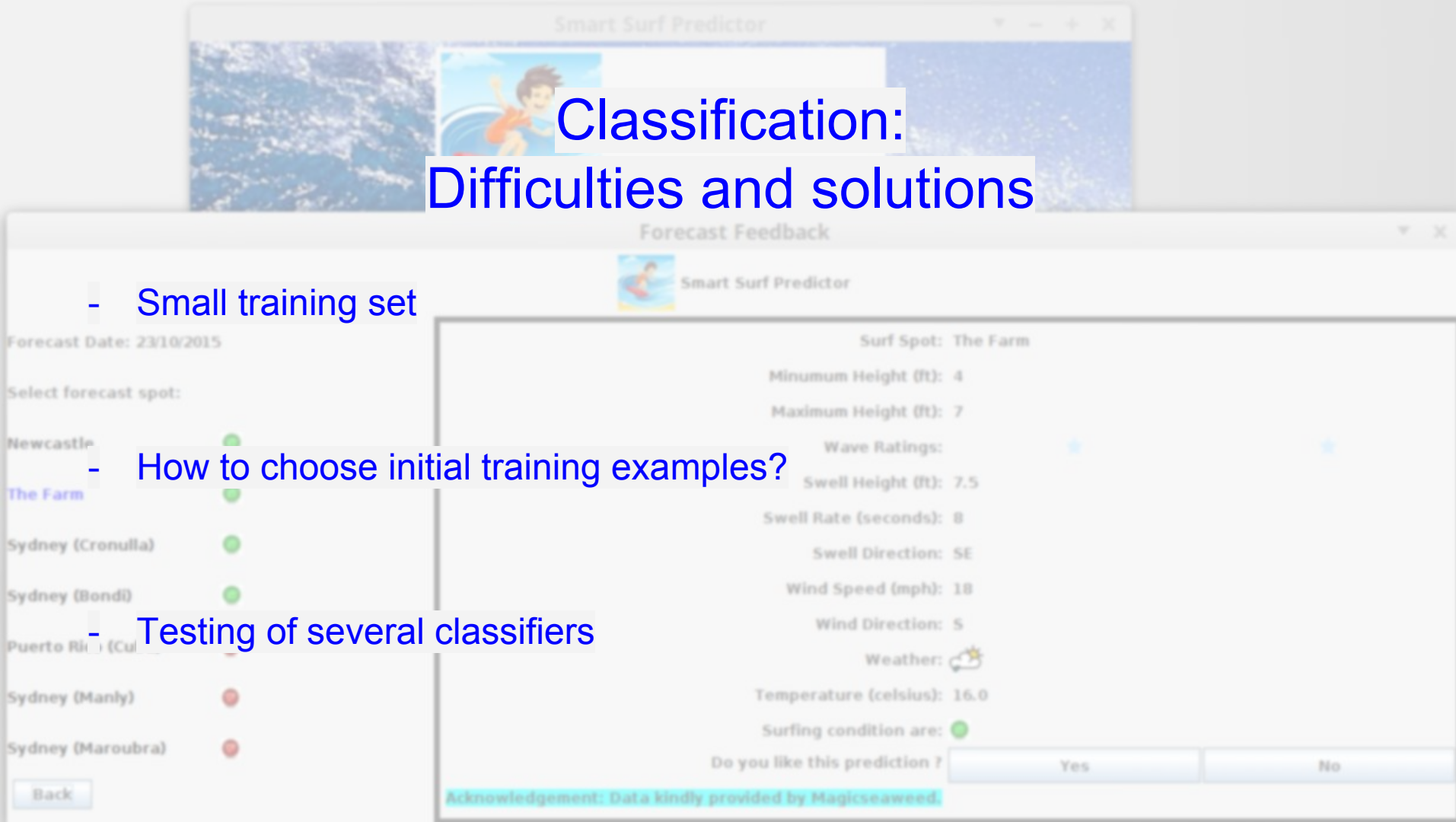


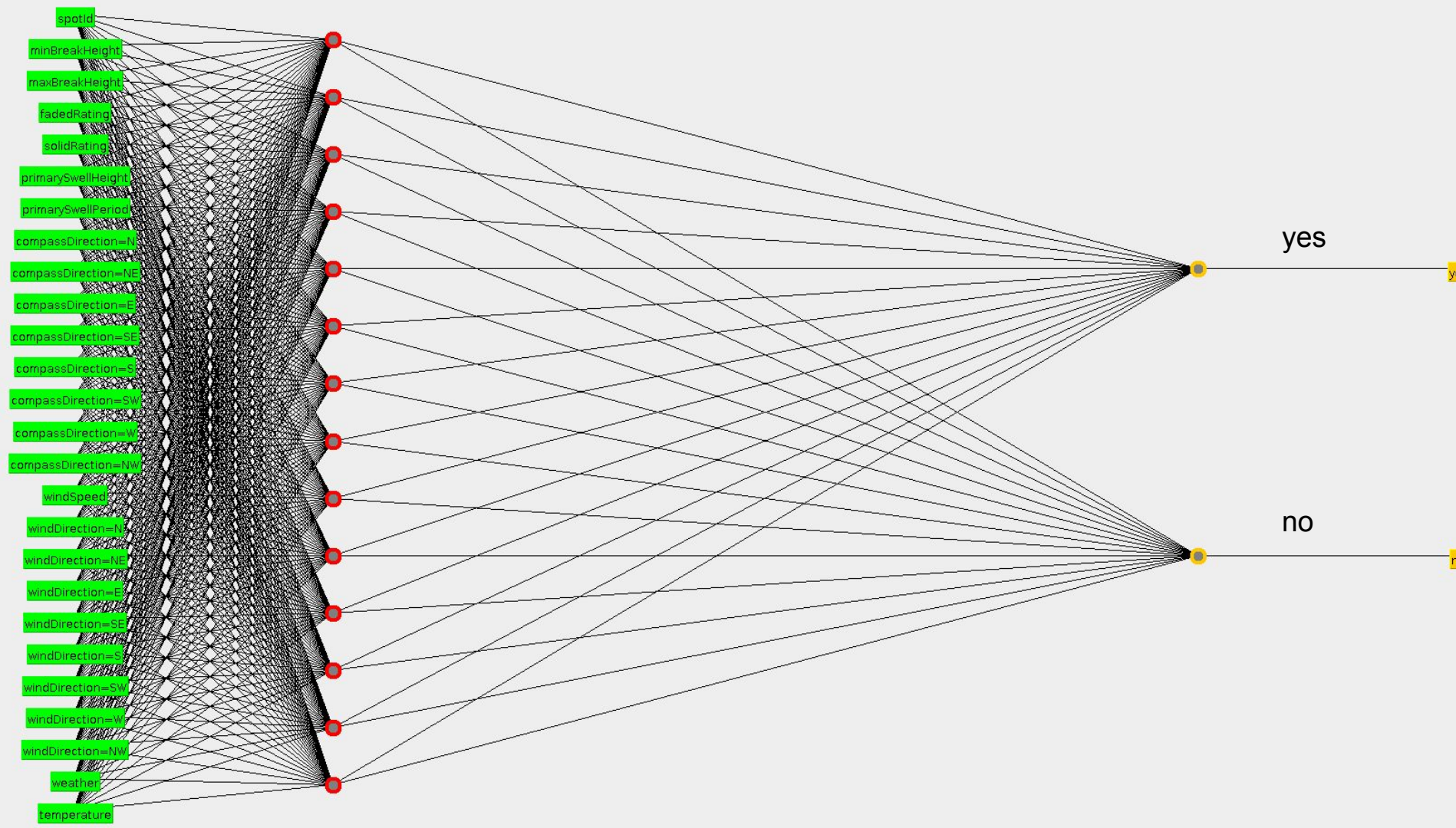
Classification: Difficulties and solutions

- Small training set

- How to choose initial training examples?

- Testing of several classifiers





	Naive Bayes	SimpleLogistic	Multilayer Perceptron (NN)	RandomTree
Correctly classified [%]	76.2	88.1	90.5	83
Precision	0.79	0.88	0.91	0.84
Recall	0.76	0.88	0.91	0.83
F1-Measure	0.76	0.88	0.91	0.83
Time to build [s]	0	0.2	0.3	0

Dataset 3: 84 instances (42 yes / 42 no)

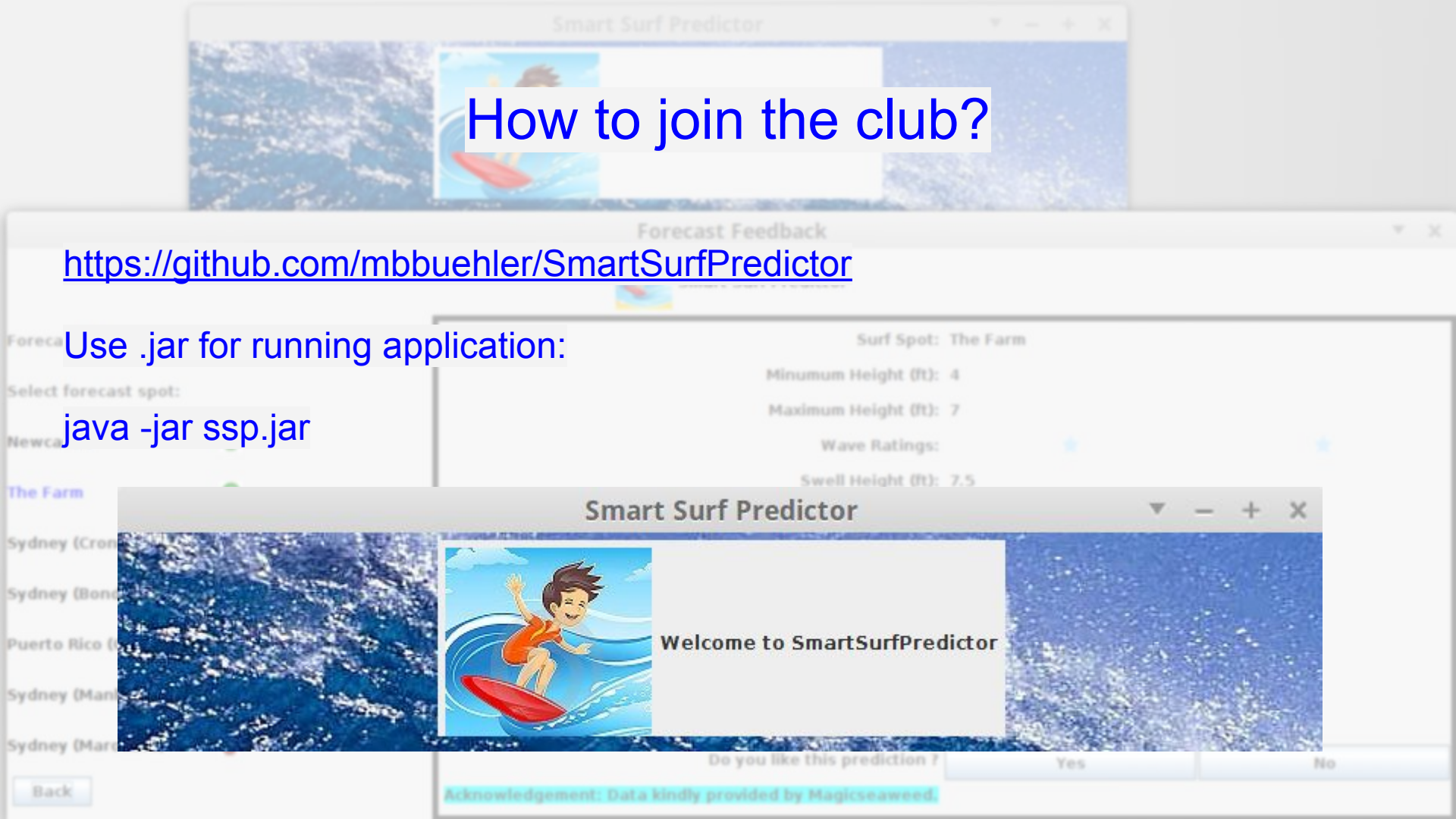
Testing: 10-fold cross-validation

How to join the club?

<https://github.com/mbbuehler/SmartSurfPredictor>

Use .jar for running application:

```
java -jar ssp.jar
```



A dramatic photograph of a surfer riding a wave at sunset. The surfer is silhouetted against the bright, low sun, which creates a strong backlighting effect. The wave is breaking, with white foam and spray visible. The sky is a deep orange and yellow, and the water in the foreground is dark blue with some white foam from the wave.

Surf Safely with SmartSurfPredictor