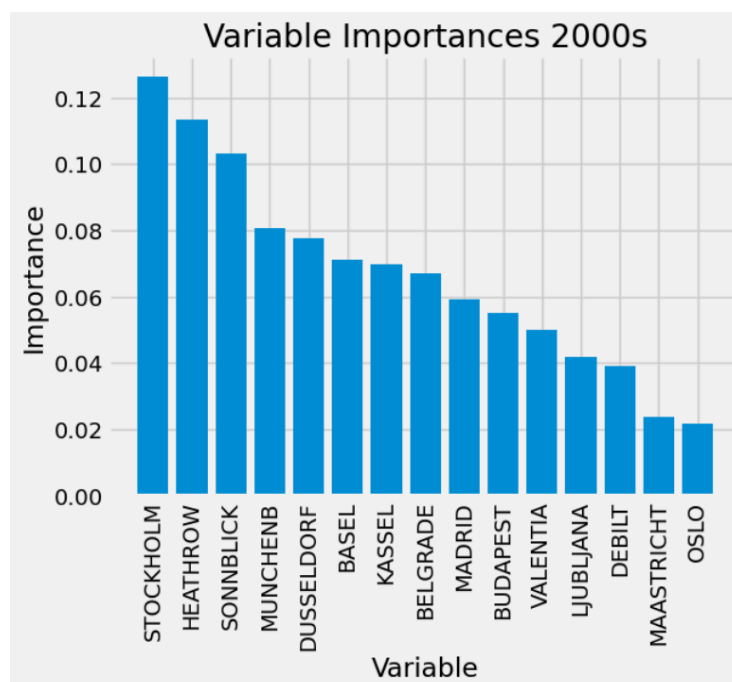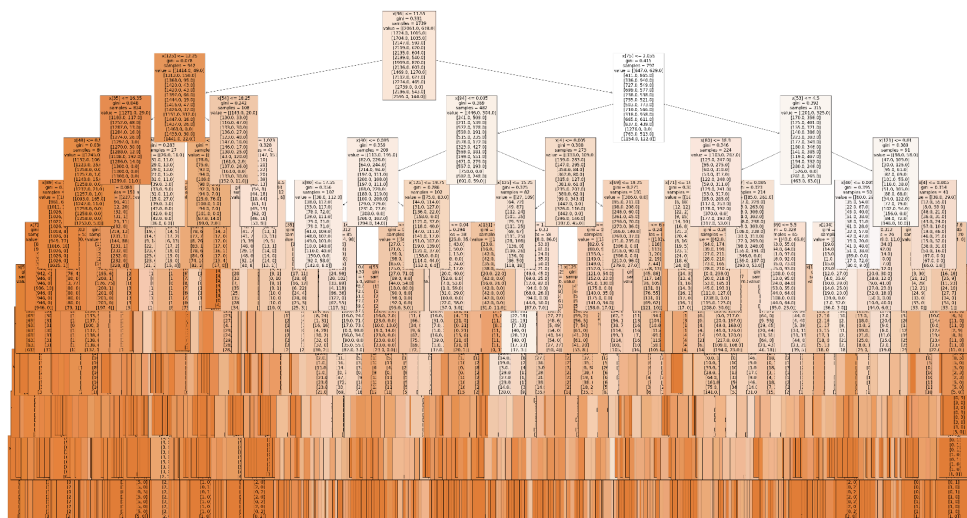# *Exercise 2.3: Complex Machine Learning Models and Keras Part 2*
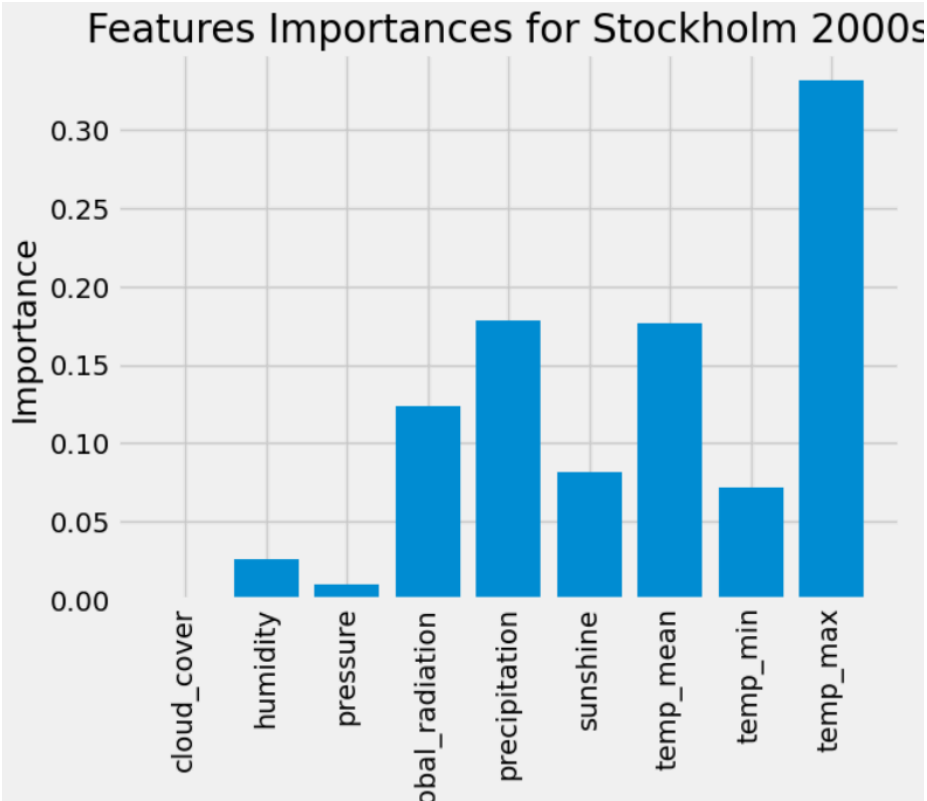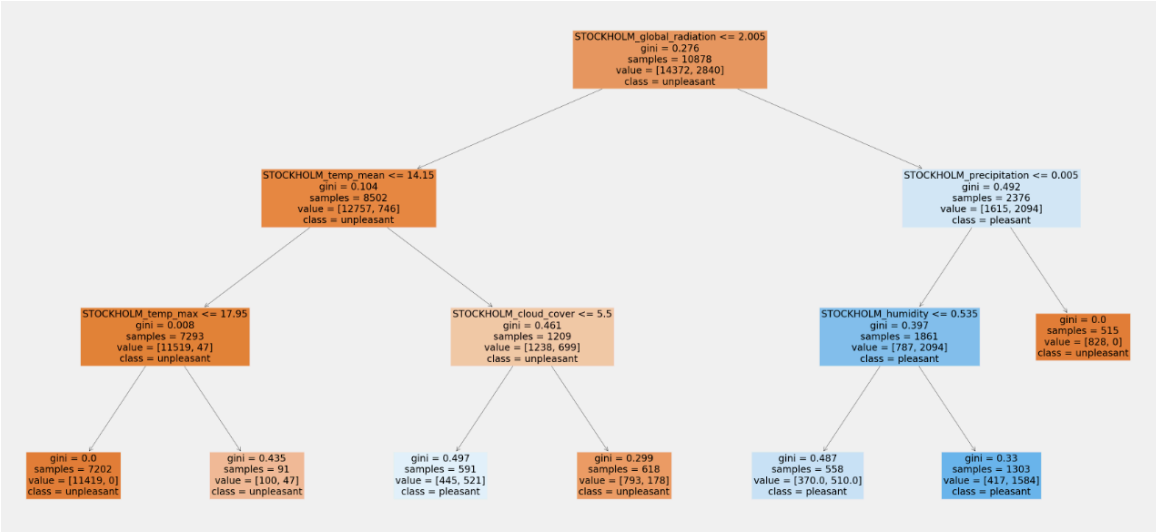
General 2000-2009

Model Accuracy: 0.5514223194748359

Variable Importances 2000s

STOCKHOLM

Model Accuracy: 0.9973858487277797

Features Importances for Stockholm 2000s

HEATHROW

Model Accuracy: 0.9994771697455559

Features Importances for heathrow 2000s
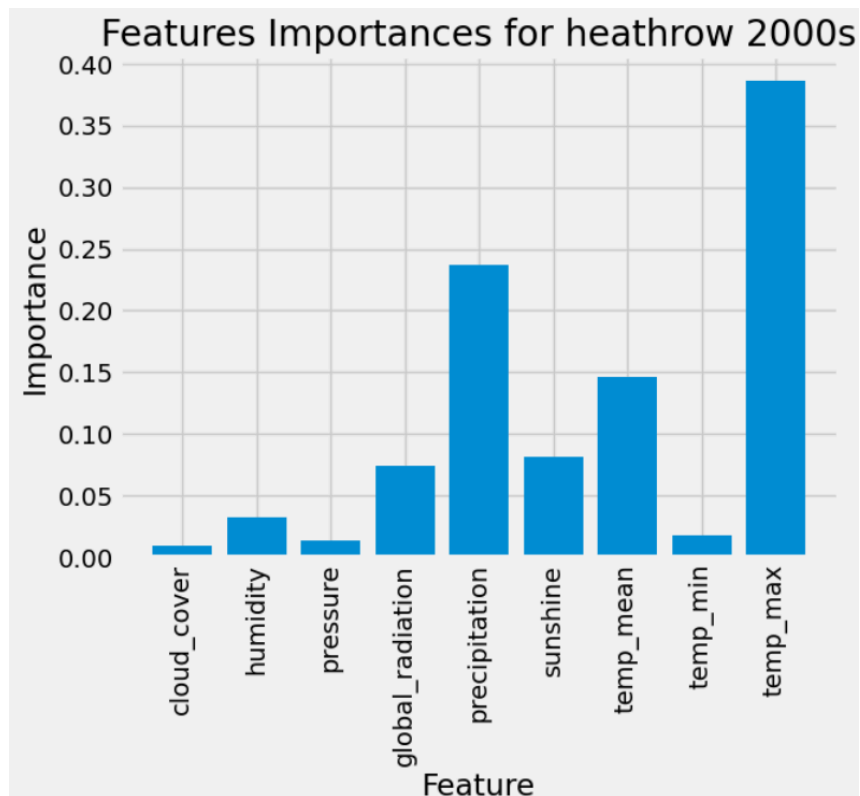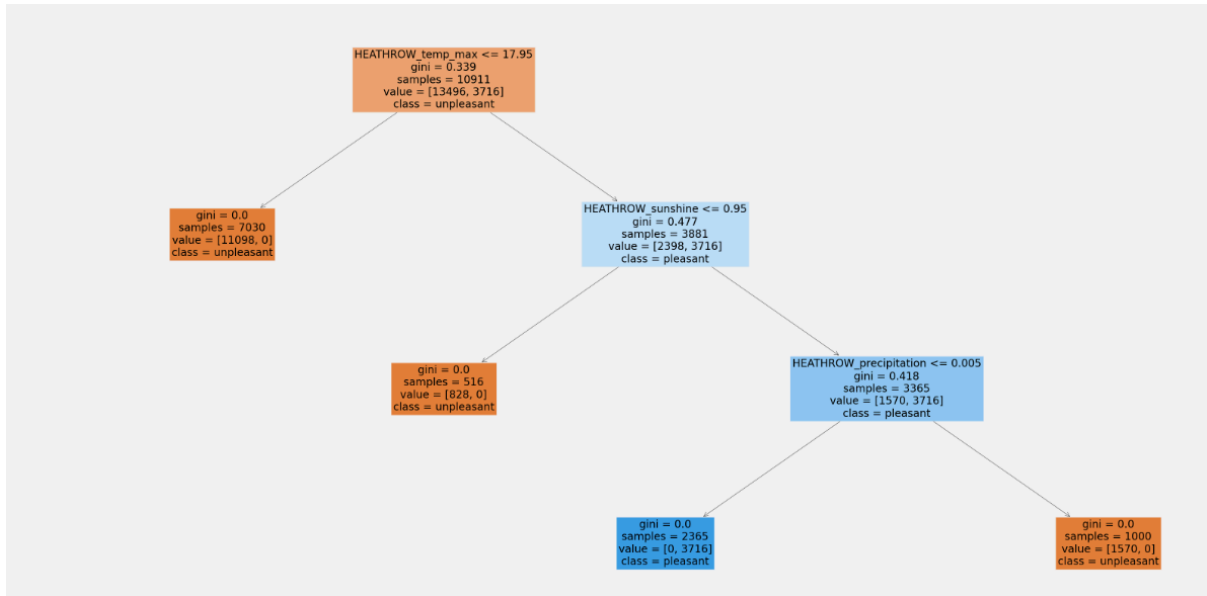
SONNBLICK

Model Accuracy: 1.0

gini = 0.0
samples = 10876
value = 1.0

Features Importances for Sonnblick 2000s
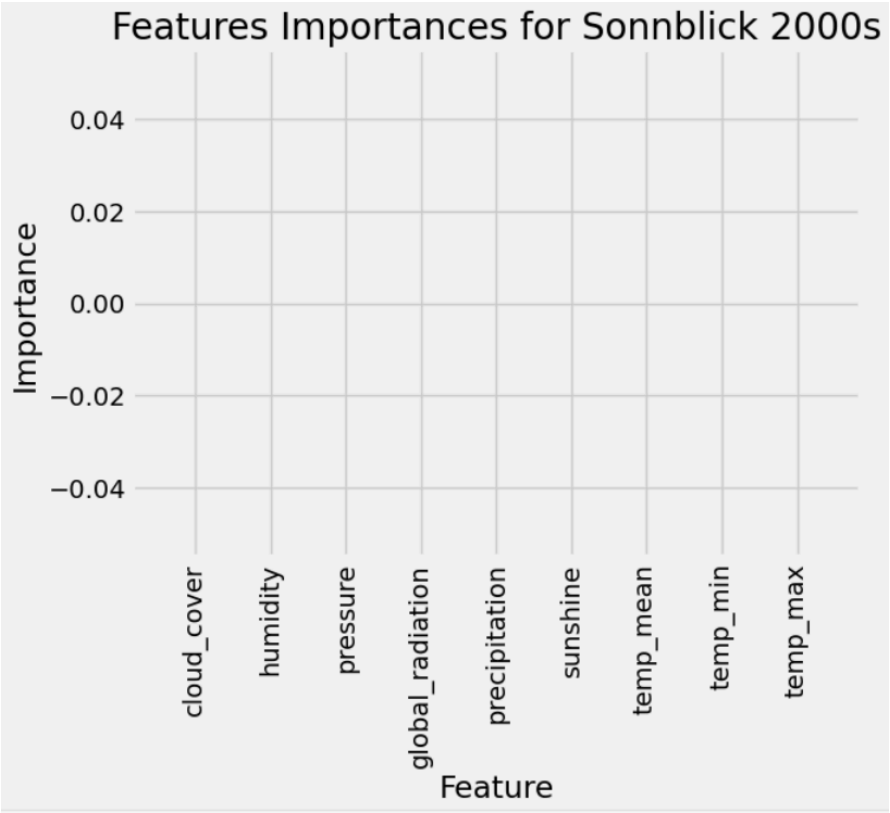
Maximum temperature, Precipitation, and temperature mean are shown to be the highest influential measurements to determine whether a day will be pleasant or not both for Stockholm and Heathrow stations. Sonnblick on the other hand does not offer any information on how measurements affect the pleasant weather category. This is due to Sonnblick not having records of pleasant weather. I came up with two possible solutions for this:

- Adjusting the parameters that classify a day as pleasant depending on the region and its usual climate conditions. After all, a pleasant day doesn't mean the same for someone living in Barcelona than for someone living in Dublin.
- Consider measuring other climate conditions.

The accuracy of the model is low for the general analysis, lying just above 55%, but the model shows to be very successful when used upon measurements for each particular station, being above 99%.