

Report of Exercise 06

Implementation Approach

This exercise was implemented following the table on the exercise sheet.

Results

SMAC

In the following Figure 1, shows the learning curves using SMAC.

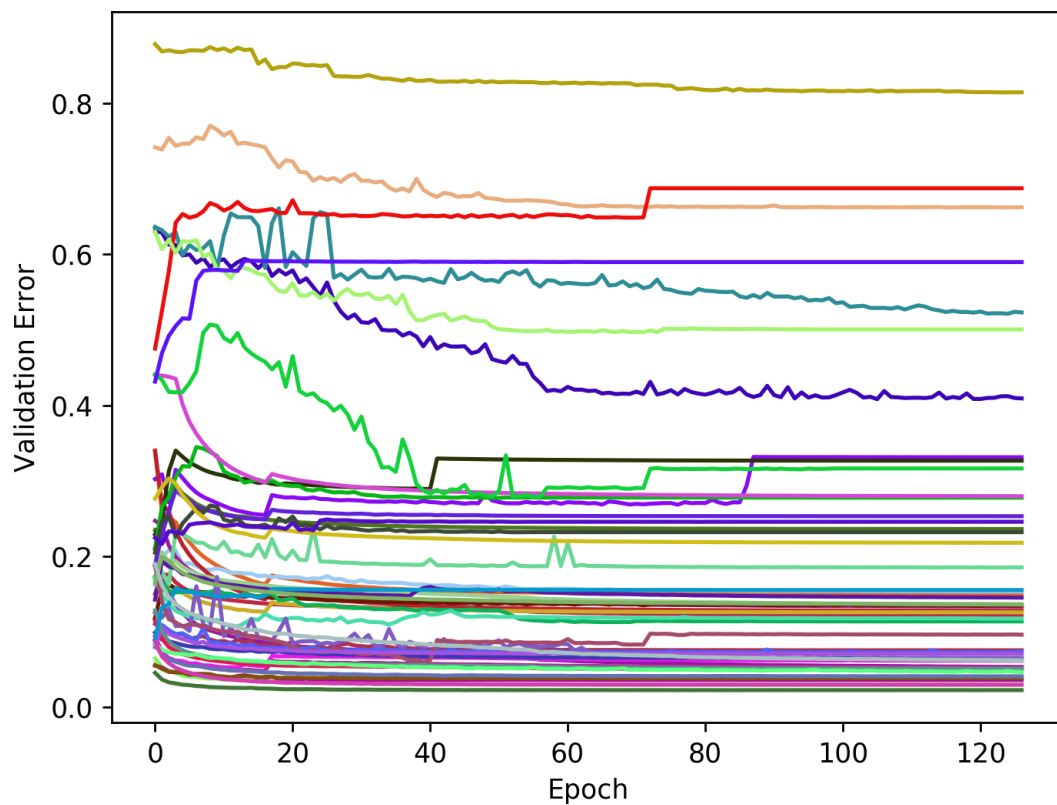


Figure 1: Learning Curves, SMAC

Hyperband

In the following Figure 2, shows the learning curves using Hyperband.

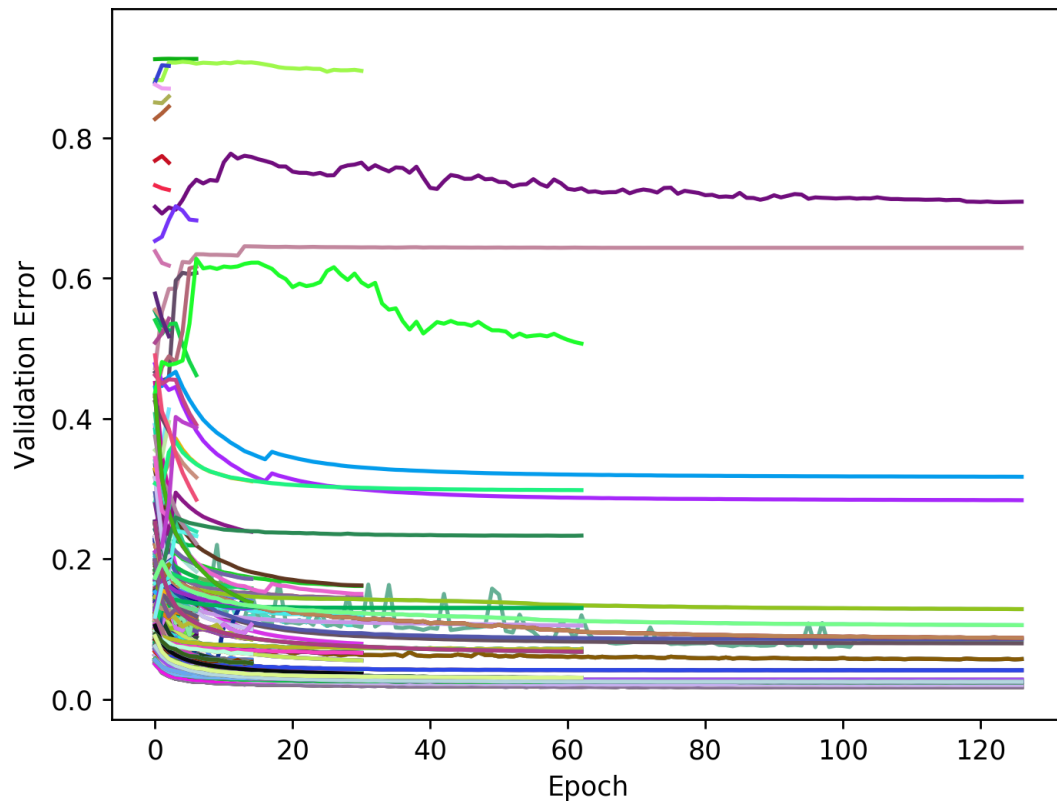


Figure 2: Learning Curves, Hyperband

Early stopping of learning curves can clearly be seen.

Figure 3 below, compares the incumbent performance using respectively, Hyperband and SMAC.

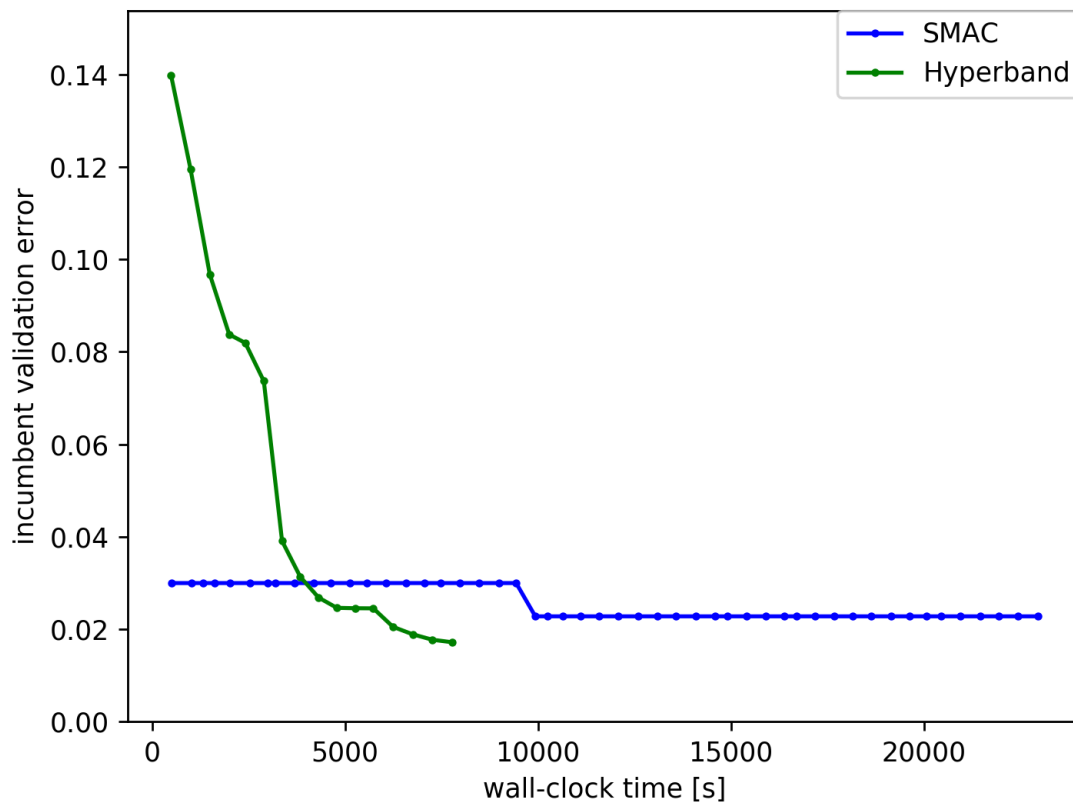


Figure 3: Comparison

Compared to SMAC, Hyperband starts out with very bad results but quickly improves and finds a good configuration, while SMAC starts out a lot better but takes longer and the result in the end is not as good as the one using Hyperband.

Looking at the plot, it looks like Hyperband is more than twice as fast as SMAC.