

## 1   **A   Appendix**

### 2   **A.1   Computational Resources**

3   Here we detail specifics regarding compute usage for our experiments. All hyperparameter optimiza-  
4   tions were performed on an internal cluster. Each experiment was assigned 6 to 8 GPUs per search  
5   and run for approximately 12 hours each. The GPUs were randomly assigned to a task based on  
6   availability. Below we have listed all the types of GPUs included in the cluster:

- 7   • Nvidia GeForce GTX Titan X
- 8   • Nvidia GTX 1080 Ti
- 9   • Nvidia Titan XP
- 10   • Nvidia Quadro RTX 6000

11   The average computational time was approximately 288 hours to complete all the included experi-  
12   ments.

### 13   **A.2   Code and Configuration Instructions**

14   We extended SHADHO’s framework <https://shadho.readthedocs.io/en/latest/> with our  
15   newly developed NCQS method. The codes and instructions required to configure our method are  
16   included in NCQS\_Code.zip.