

Figure 1: Comparison of MICE with CPO in more complex and continuous environments. MICE achieves better constraint satisfaction while maintaining policy performance comparable to CPO.

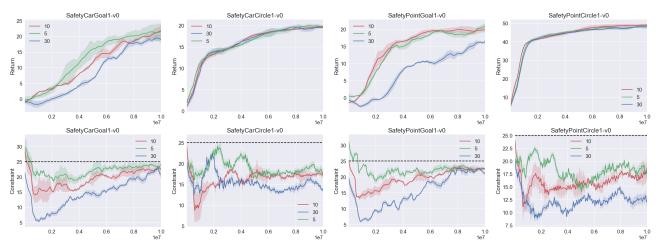


Figure 2: Sensitivity analysis of MICE algorithm for different  $N_k$  in KNN. Increasing  $N_k$  enhances the safety of the policy but raises computational overhead. In this work, we selected  $N_k = 10$  uniformly across all environments to balance safety, performance, and computational efficiency.

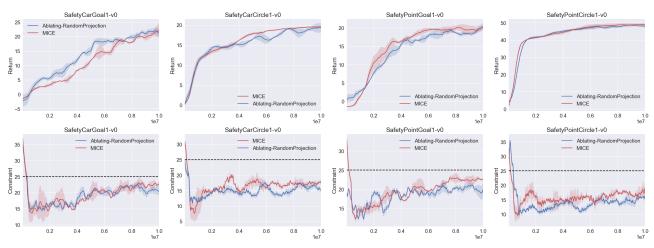


Figure 3: Ablation study of random projection layer in MICE algorithm. Utilizing random projection in MICE does not degrade policy performance or increase constraint violations.