Anusha Dudi Kaushik Velusamy Mounica Kalavakuri Ethan Hein

Our player implements a CSP solver using forward chaining. We first generate a list of all one-card, two-card, or three-card rules, depending on how many cards are initially provided. For two- and three-card domains, this list is massive, but we immediately eliminate any rule that does not match the given card(s). Forward chaining then comes from continuing to eliminate impossible rules as more cards are played, which very quickly narrows down the possible set of rules. To pick a card, we first pick a current rule, which is just the first rule in the list of (legal) rules. We then pick and play a card satisfying that rule. If successful, we increase our confidence for that rule, and if not, then that rule (and usually many others) is eliminated in forward chaining, and we pick a new rule to use the next time we play a card.