

# ALGORAND

## GAME PLATFORM

Algorand School 2022

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# DEVELOPER TOOLS

PyTe~~AI~~



Beaker

Algorand  
sandbox



# COMPONENTS



MORRA

01

02

ROCK PAPER  
SCISSORS

BLACKJACK

03

04

GAME PLATFORM

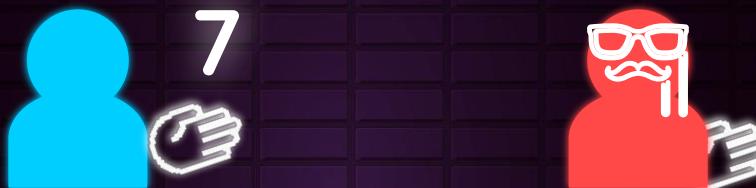




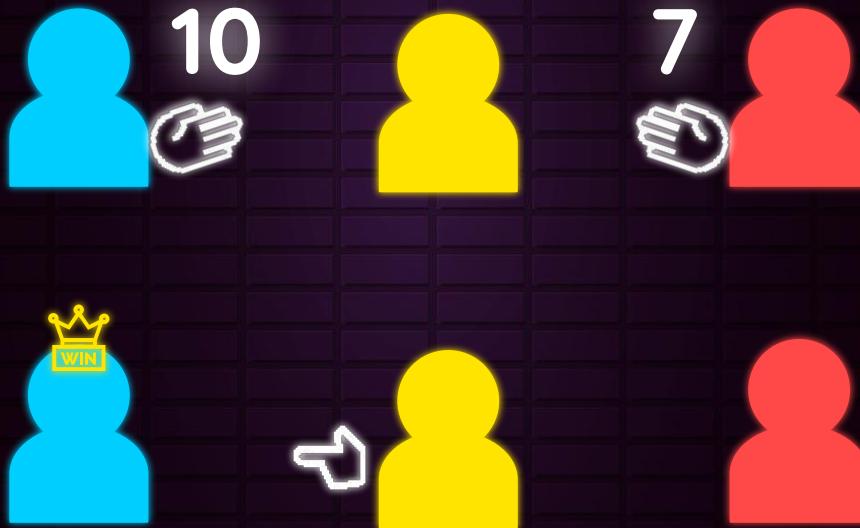
# The game of Morra



# The game of Morra



# The game of Morra



# The game of Morra



10



7



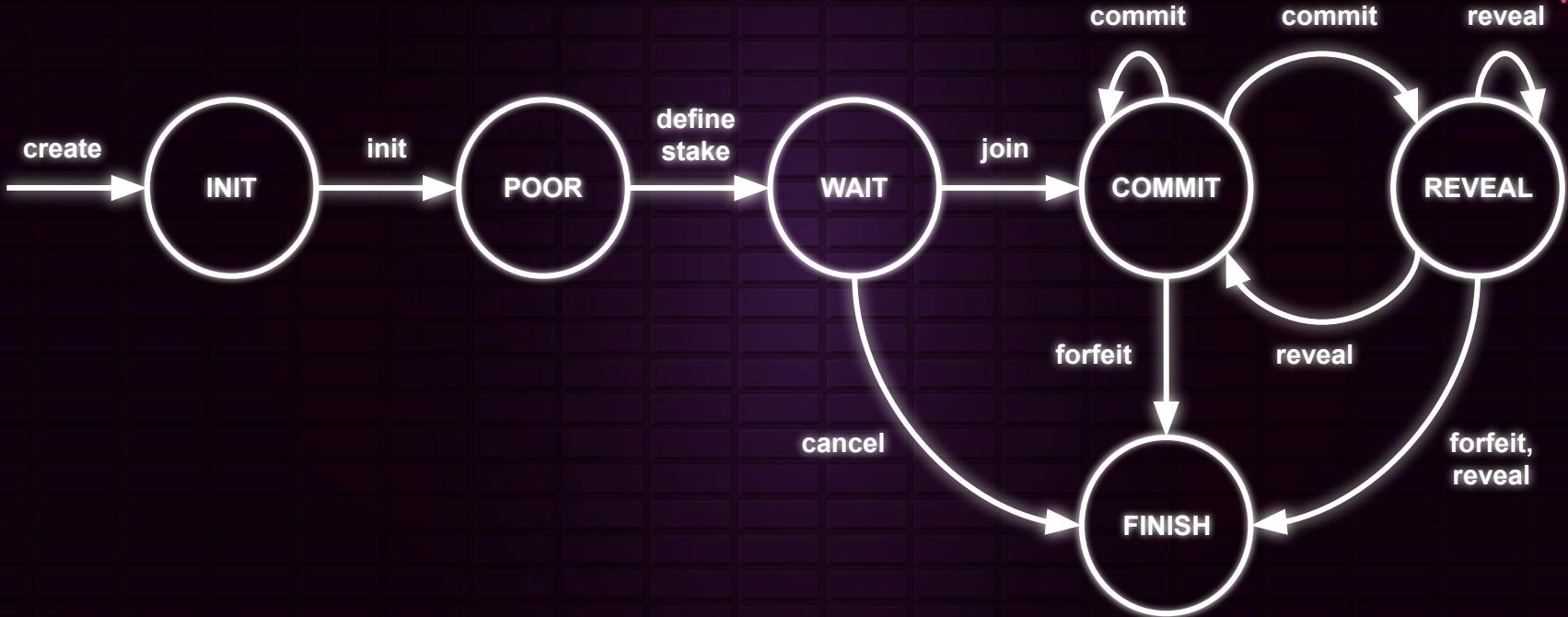
# The game of Morra

commit

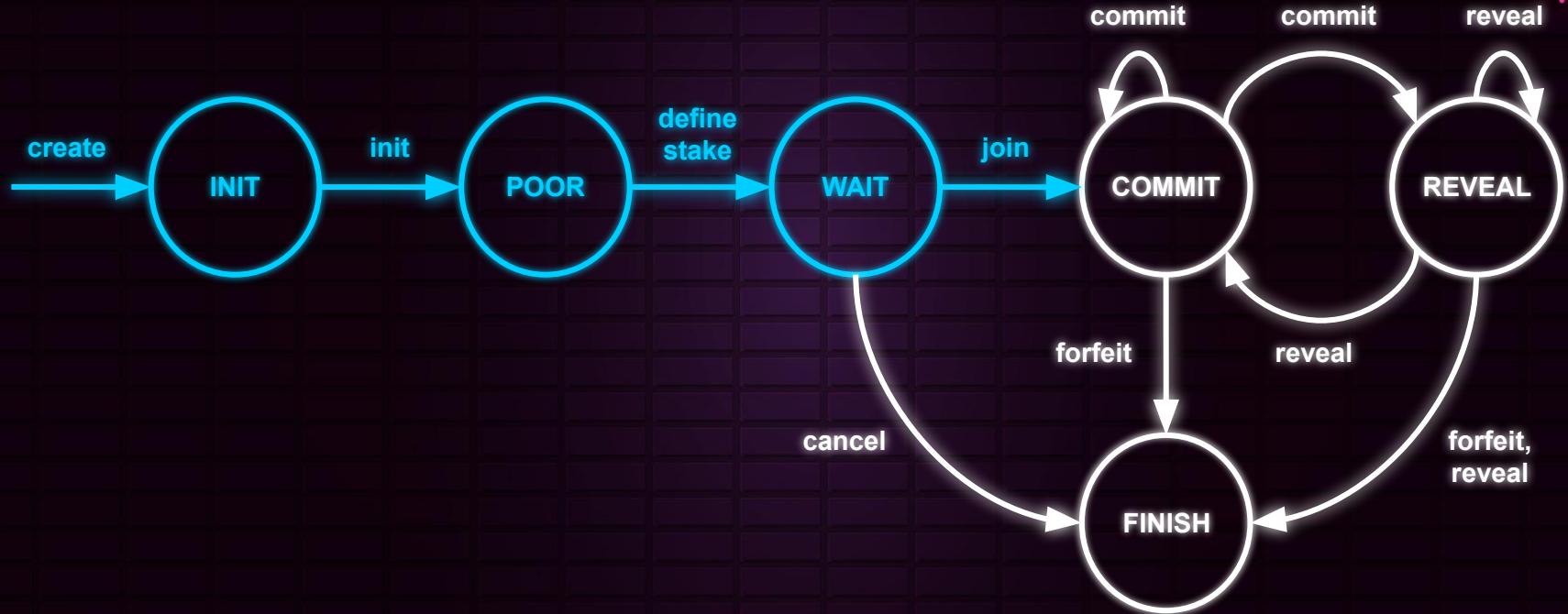


reveal

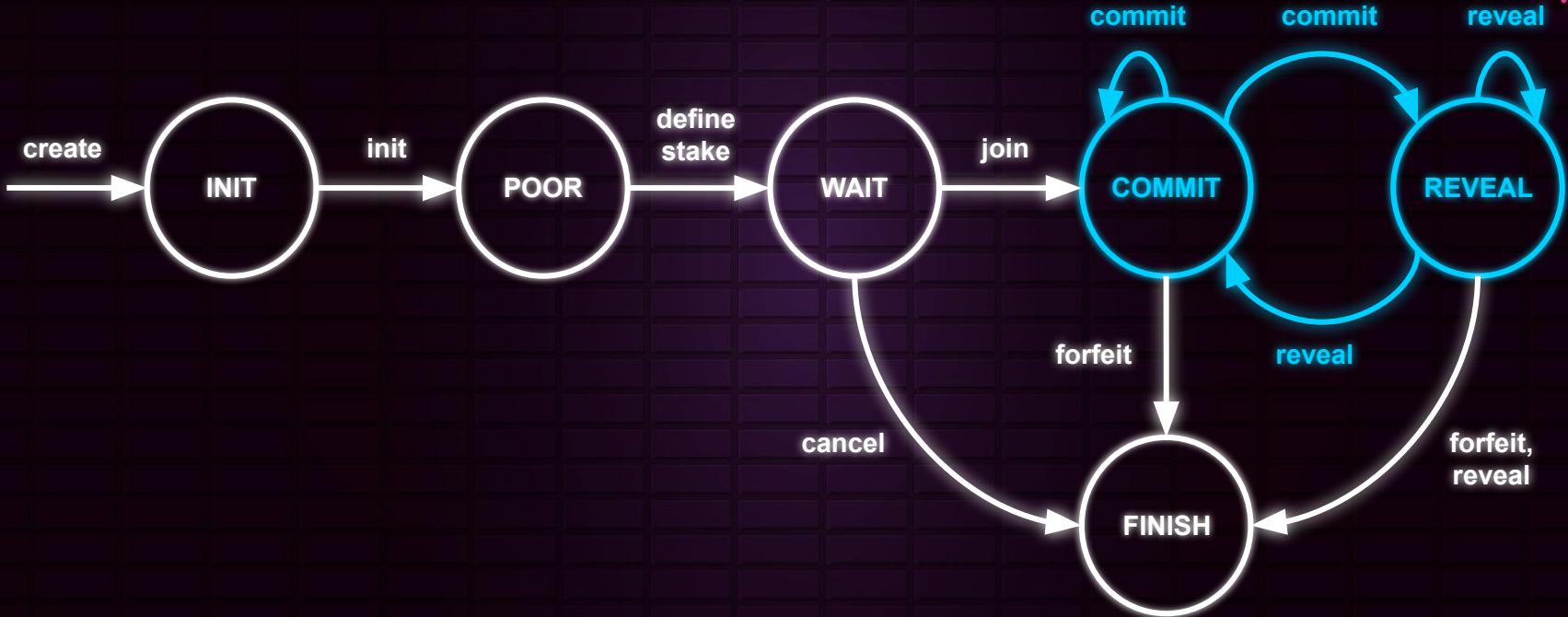




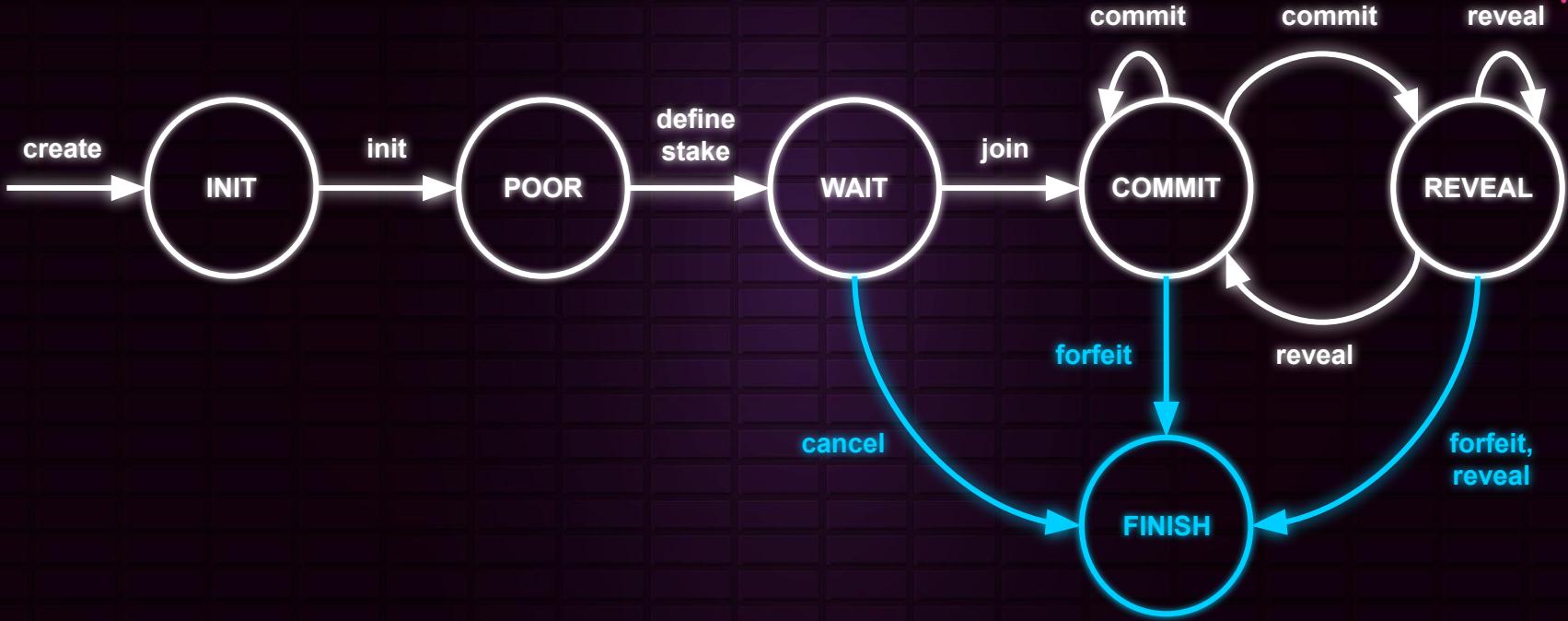
AUTOMATON



AUTOMATON



AUTOMATON



AUTOMATON

ROCK

PAPER

SCISSORS



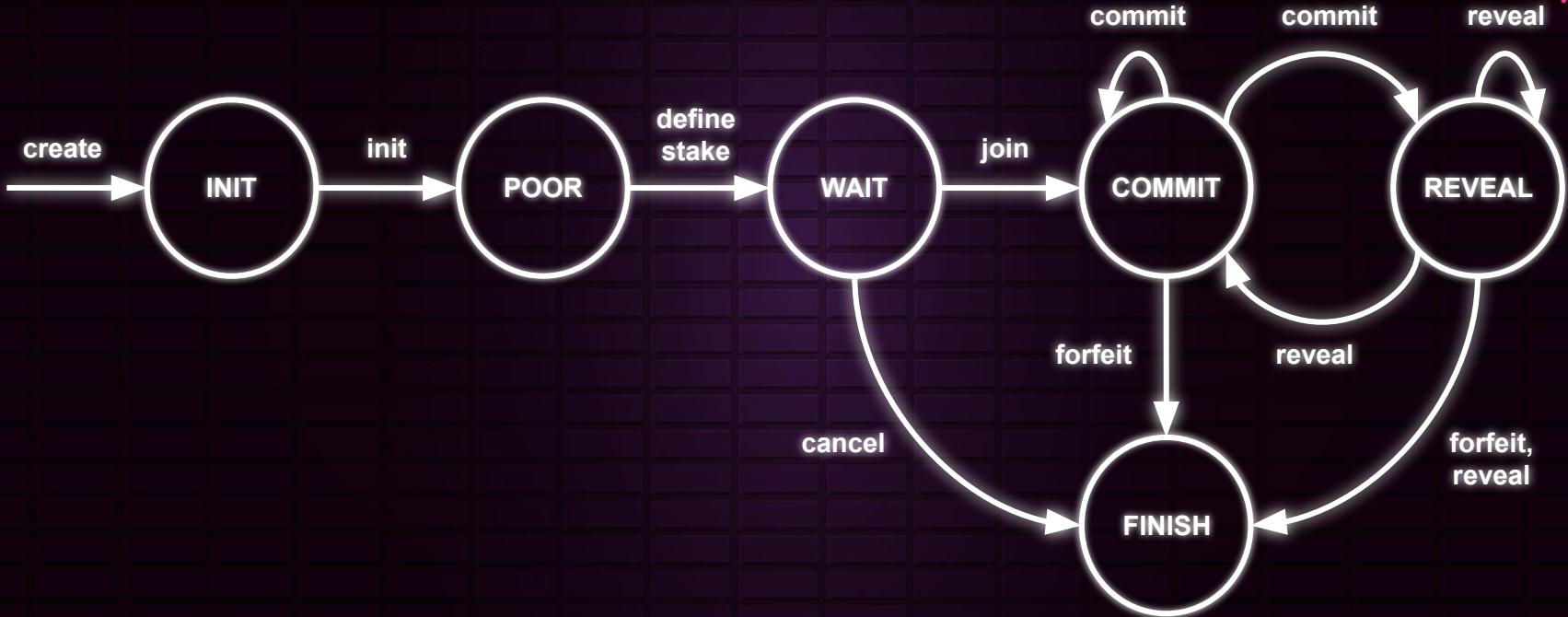
# Rock Paper Scissors

commit



reveal





AUTOMATON



# Blackjack rules



# Blackjack rules

hit



23



1 - 11



# Blackjack rules



# Blackjack rules

stand



19



7 - 17



# Blackjack rules



17



draw



1 - 17



# Blackjack rules



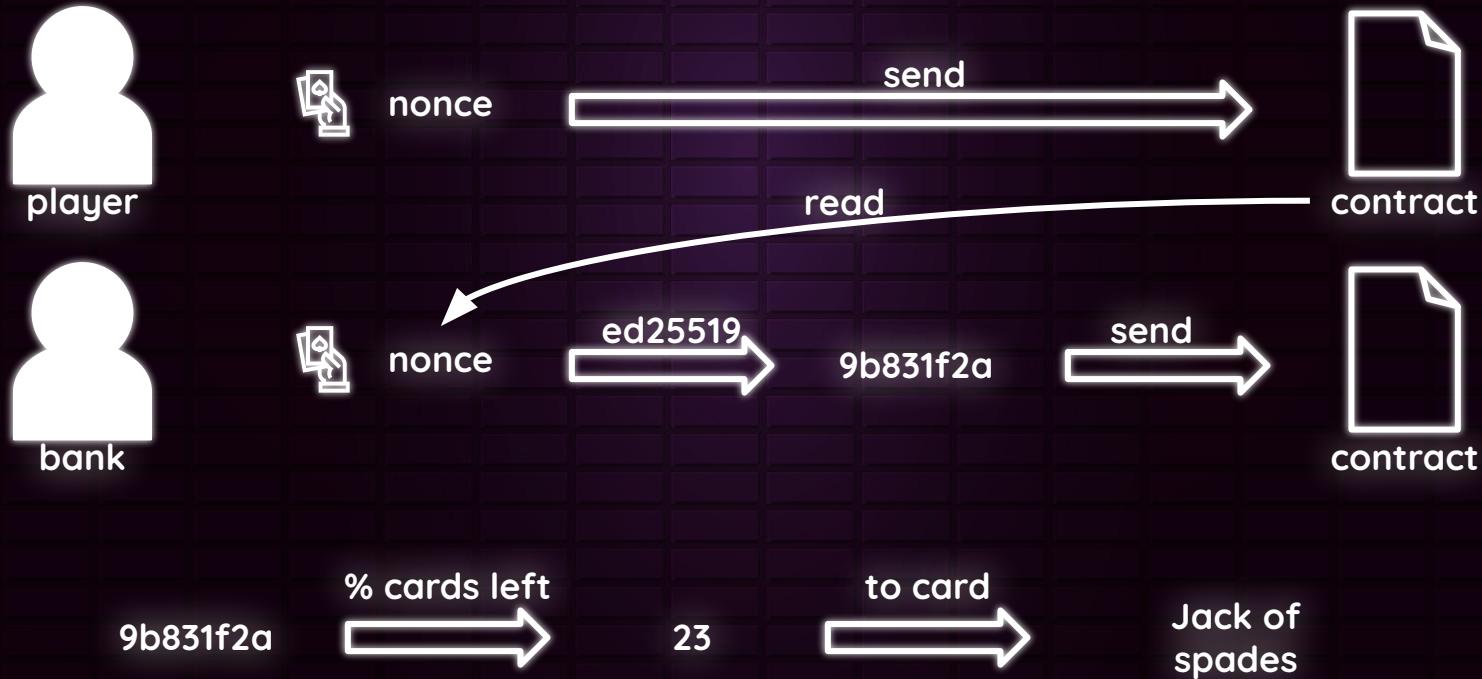
21

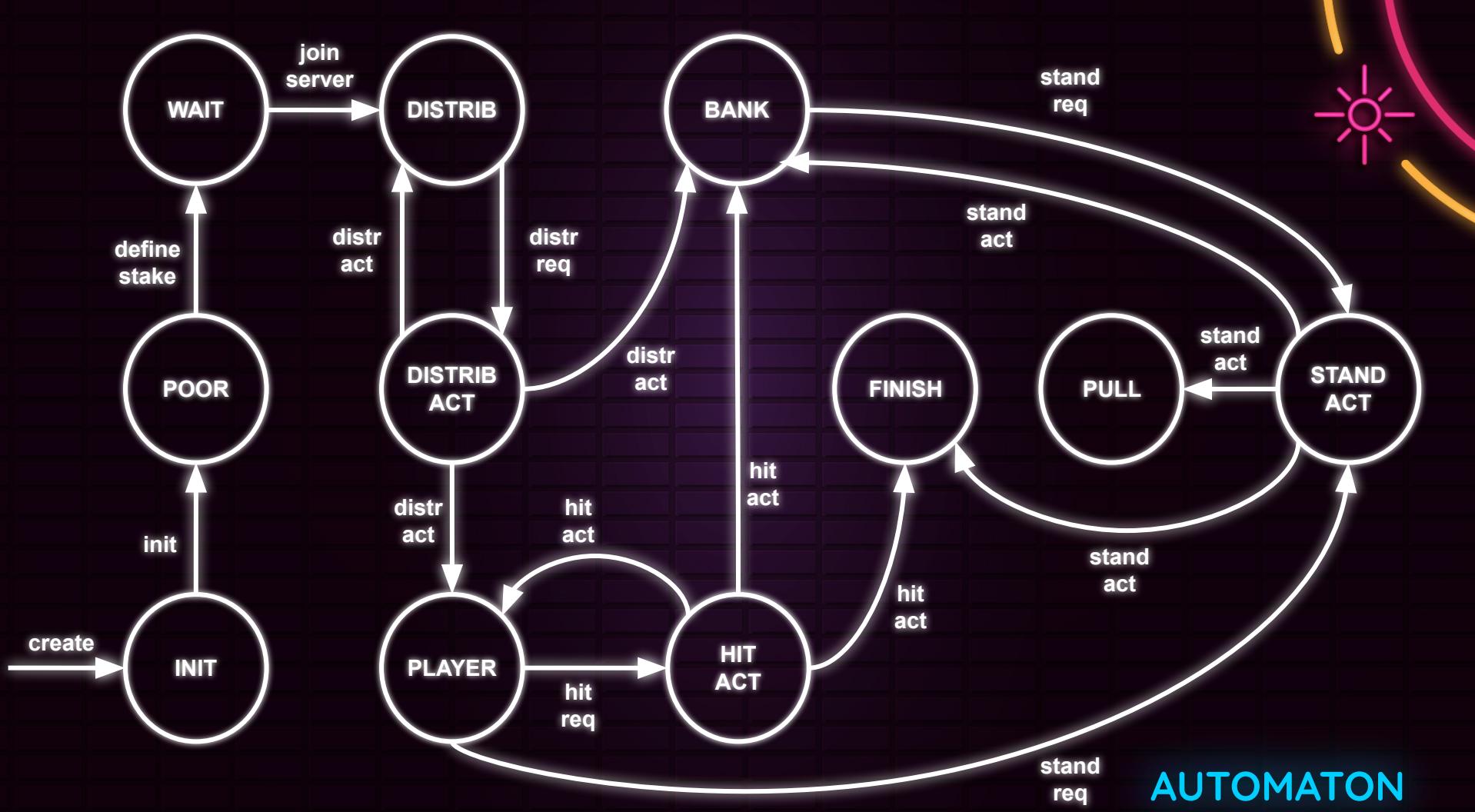


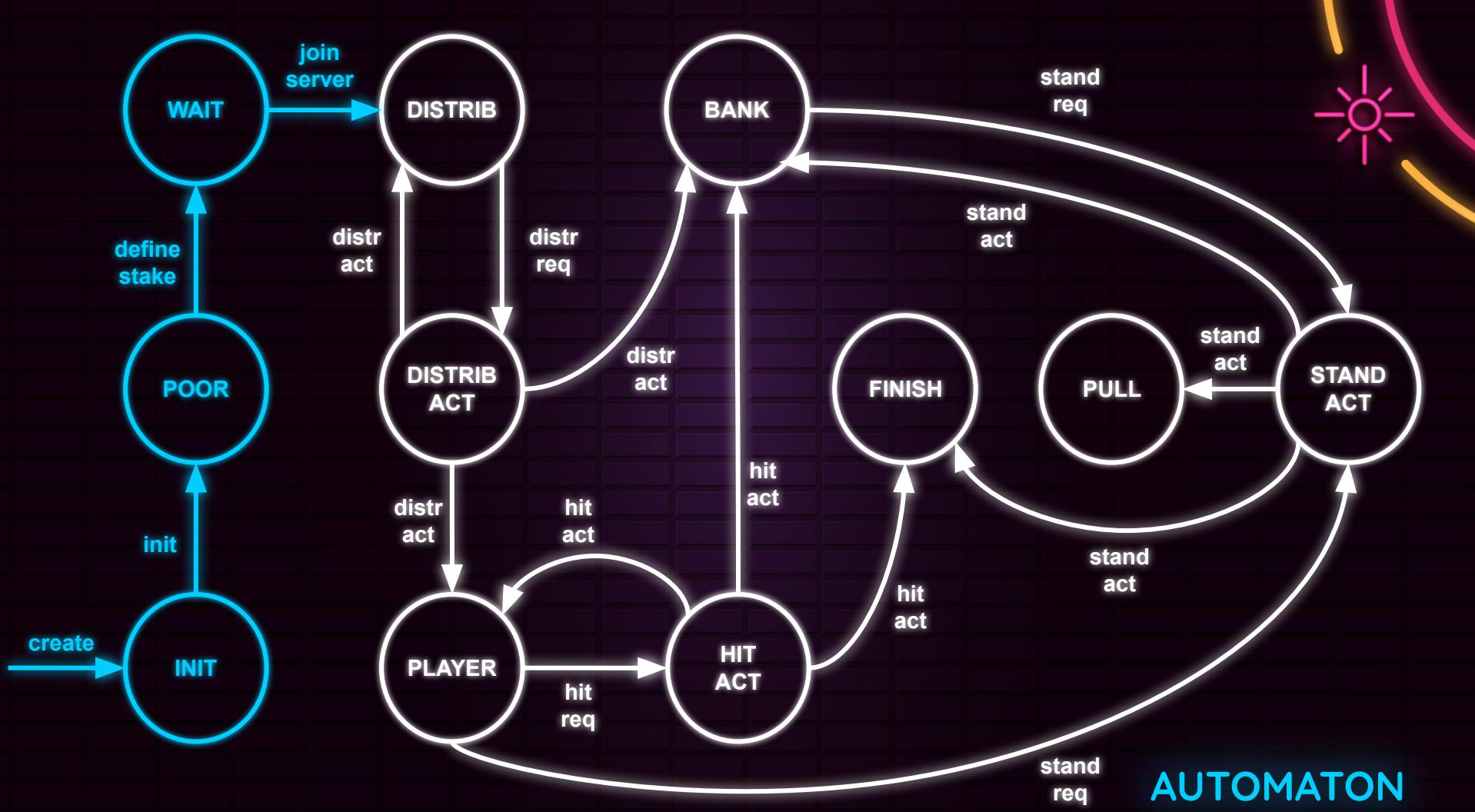
blackjack

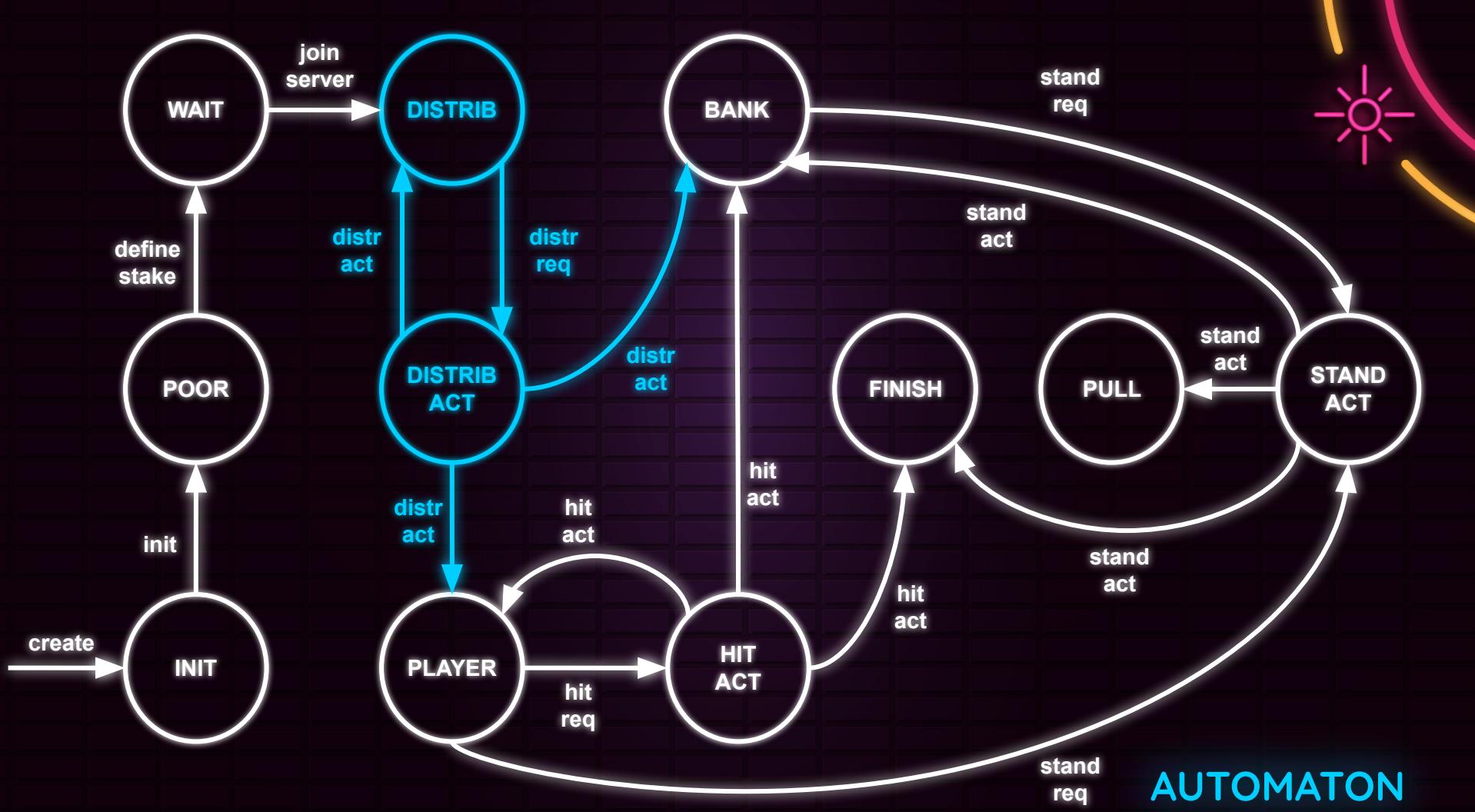


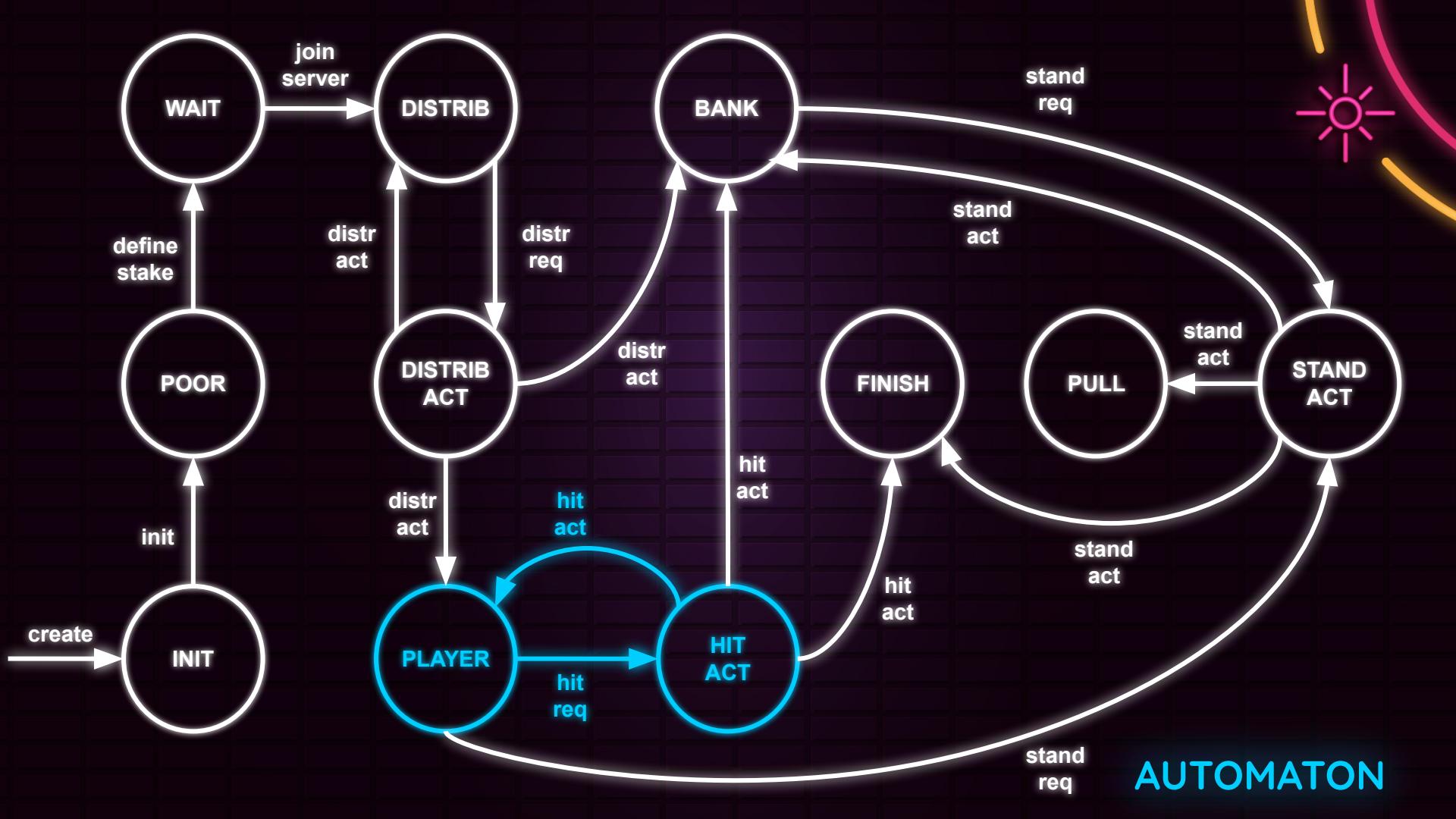
# Blackjack

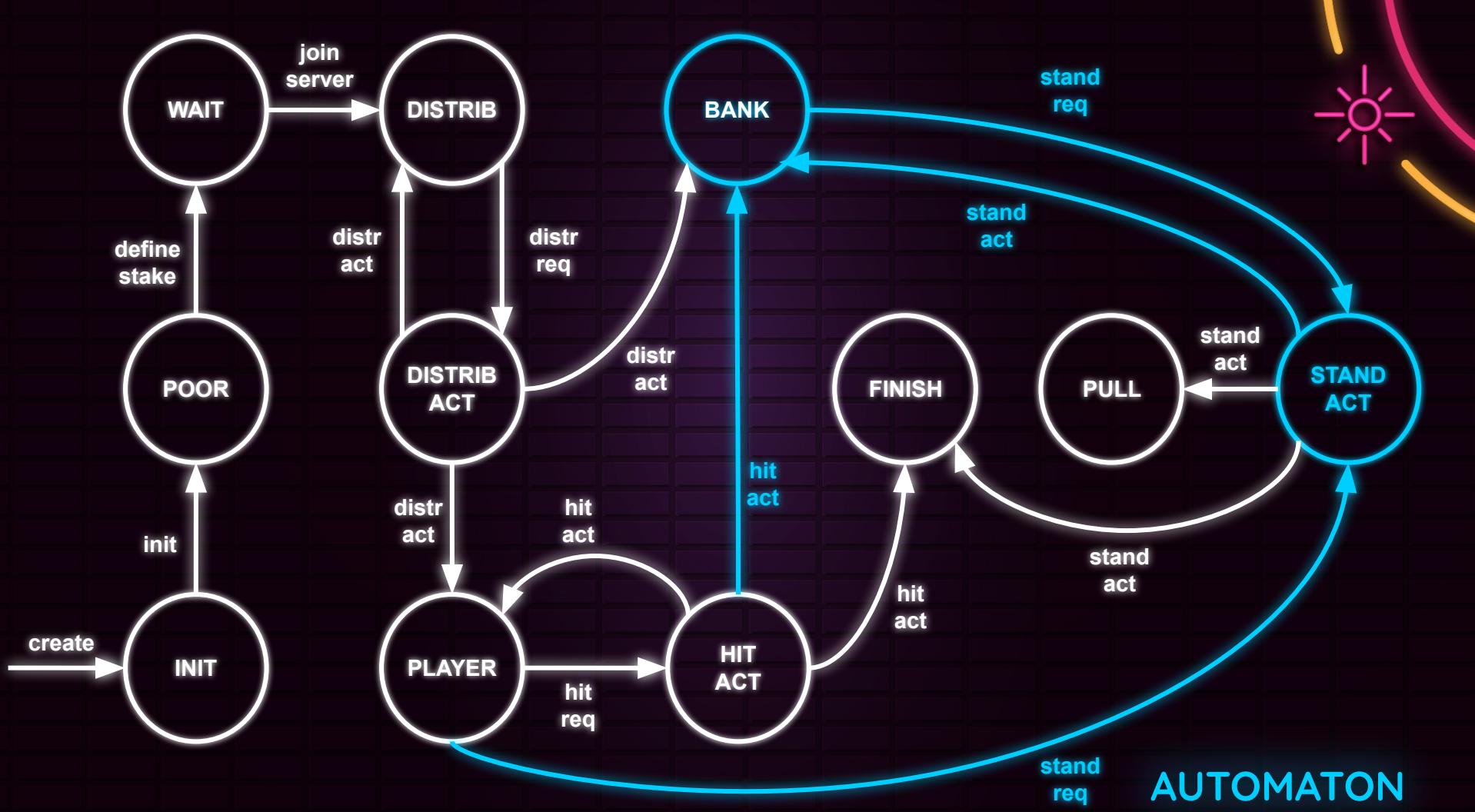


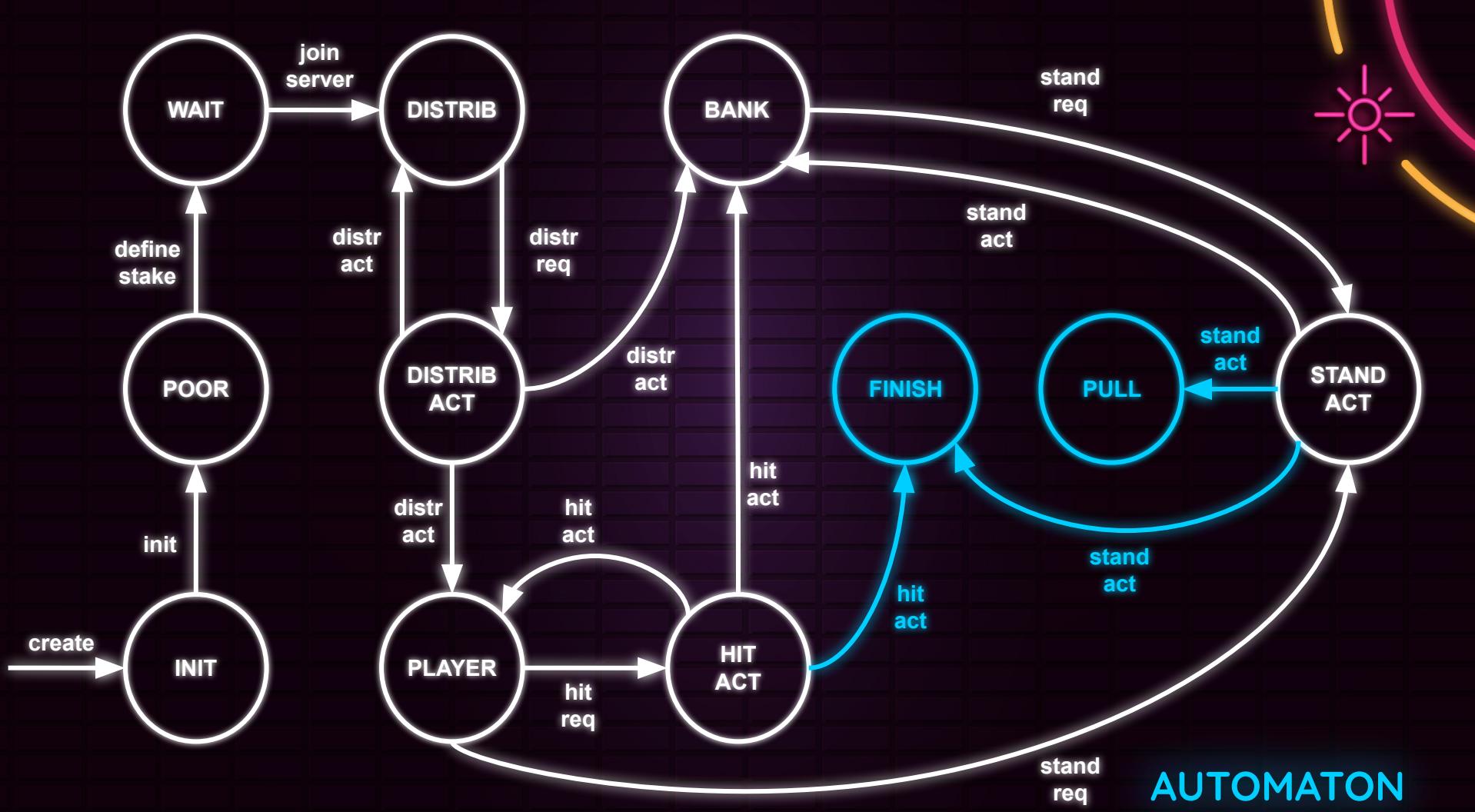














# Game Platform



Algorand Skull Coin

# Game Platform



# Game Platform



Puntazzi

# Game Platform



# Game Platform



Fee Holder

# Game Platform



# Game Platform



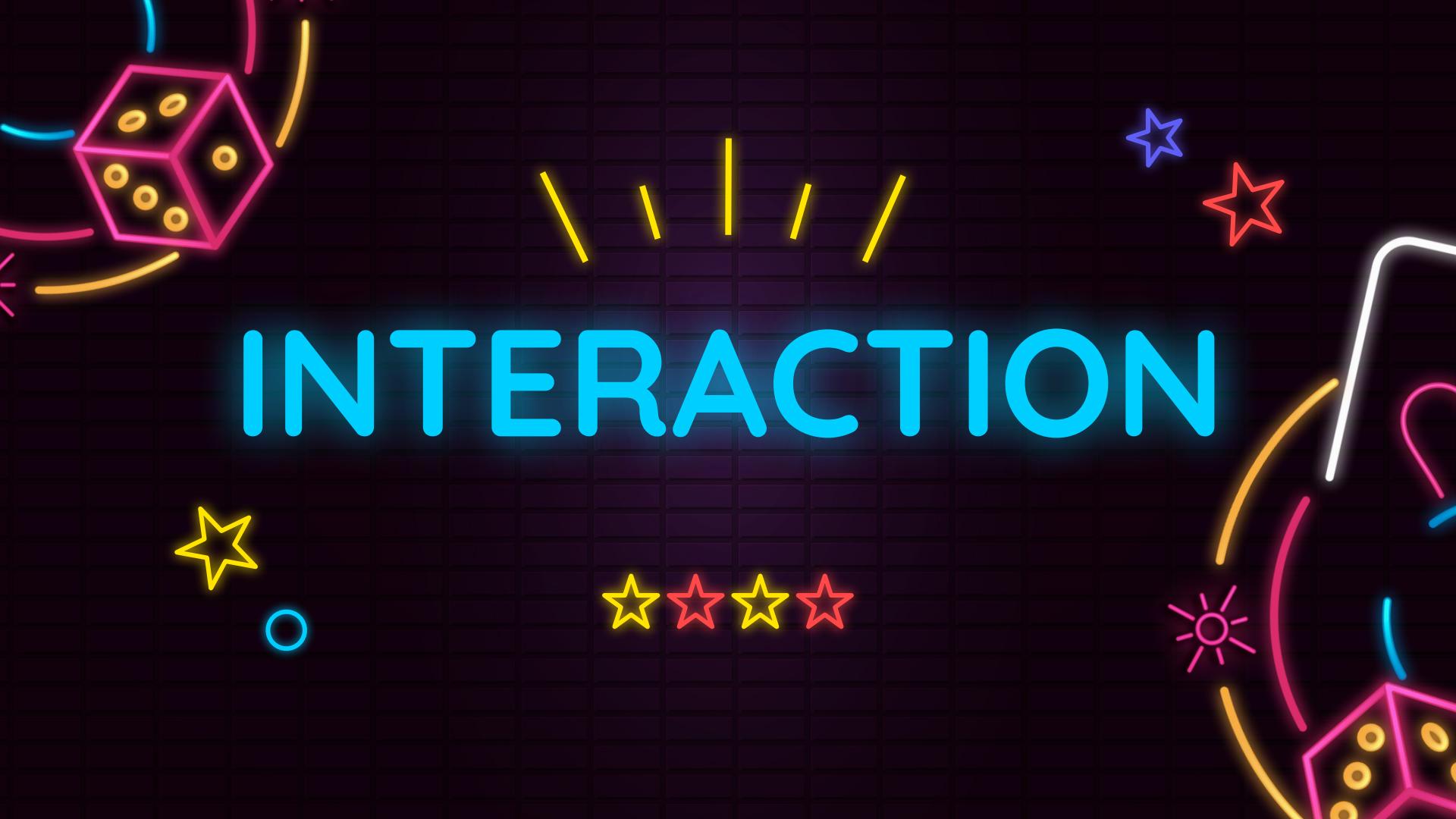
# Game Platform



# Game Platform



# INTERACTION



# Morra Interaction

## petitnau view

```
Hi, petitnau
Choose your action!
1. Opt into platform
2. Swap skulls
3. Create game
4. Join game
5. Your profile
0. Quit
```

```
> 4
```

```
Choose your game:
1. 116879260 (morra, vs Geladen)
```

```
> 1
```

```
Stake is 100. Join? (y/N) y
Joining game... Done!
```

```
What is your hand? 5
What is your guess? 8
Sending commit... Done!
Waiting for other player to commit...
Revealing your choice... Done!
Waiting for other player to reveal...
Your hand: 5, Challenger hand: 3, Total: 8
Your guess: 8, Challenger guess: 7
You won the round!
```

```
What is your hand? 3
What is your guess? 4
Sending commit... Done!
Revealing your choice... Done!
Your hand: 3, Challenger hand: 1, Total: 4
Your guess: 4, Challenger guess: 2
You won the round!
You won the game!
Registering win... Getting money... Done!
```



## Geladen view

```
> 3
```

```
What game do you want to create?
1. Sa murra
2. Rock Paper Scissors
3. Blackjack
0. Quit
```

```
> 1
```

```
Creating morra game... Done!
Initializing game... Done!
```

```
How much do you want to stake? 100
Sending stake... Done!
Waiting for players...
Waiting for players...
Waiting for players...
Waiting for players...
```

```
WAITING FOR PLAYERS...
What is your hand? 3
What is your guess? 7
Sending commit... Done!
Revealing your choice... Done!
Waiting for other player to reveal...
Your hand: 3, Challenger hand: 5, Total: 8
Your guess: 7, Challenger guess: 8
Challenger won the round!
```

```
What is your hand? 1
What is your guess? 2
Sending commit... Done!
Revealing your choice... Done!
Your hand: 1, Challenger hand: 3, Total: 4
Your guess: 2, Challenger guess: 4
Challenger won the round!
You lost :(
```



# Blackjack Interaction

Hi, petitnau

Choose your action!

- 1. Opt into platform
- 2. Swap skulls
- 3. Create game
- 4. Join game
- 5. Your profile
- 0. Quit

> 3

What game do you want to create?

- 1. Sa murra
- 2. Rock Paper Scissors
- 3. Blackjack
- 0. Quit

> 3

Creating blackjack game... Done!

Initializing game... Done!

How much do you want to stake? 200

Sending stake... Done!

Choosing card for bank... Done!

Your hand: Queen of hearts

Bank hand:

Choosing card for bank... Done!

Your hand: Queen of hearts, 10 of clubs

Bank hand:

Choosing card for bank... Done!

Your hand: Queen of hearts, 10 of clubs

Bank hand: 9 of diamonds

Do you want to hit or stand? (hit/stand) stand

Sending request... Done!

Your hand: Queen of hearts, 10 of clubs

Bank hand: 3 of hearts, 9 of diamonds

Choosing card for bank... Done!

Your hand: Queen of hearts, 10 of clubs

Bank hand: 2 of hearts, 3 of hearts, 9 of diamonds

Choosing card for bank... Done!

Your hand: Queen of hearts, 10 of clubs

Bank hand: 2 of hearts, 3 of hearts, 9 of diamonds, Jack of diamonds

You won the game!

Registering win... Getting money... Done!



# Profile

Hi, Geladen

Choose your action!

1. Opt into platform
2. Swap skulls
3. Create game
4. Join game
5. Resume game 116879260
6. Your profile
0. Quit

> 6

Your puntazzi: 4

Your balance: 8779 skulls, 102.471872 algo

# TECHNICAL CHALLENGES



# Technical Challenges



Beaker

# Possible improvements

Proving security of the  
Blackjack protocol

Creating a single inheritable  
interface contract for games

# THANKS!

## FOR PLAYING



Algorand School  
2022

CREDITS: This presentation template was created by Slidesgo, and includes icons by Flaticon and infographics & images by Freepik

