



Introductions

- About me
 - Always wanted to build something cool
 - Started programming by building iPhone apps with friends and going to hackathons
 - Currently at Meta as an IC 4 Software Engineer
 - Got Repetitive Strain Injury and have been transitioning to voice coding for the past year. I have actually prepared this presentation without touching my keyboard
- What is a fun activity you have done last week?
- Today we will be building a multiplayer web browser version of the game called Blink

Understanding Blink

- Team formation with 3-4 people
- Explain the rules and terminology (player's hand, stacks)
- Hand out cards
- Play a round with real cards

Modeling the game

How does our game start?

- We pick a table and sit
- Players get their cards:
 - Player 😊 : [card 1, card 2, card 3, ... hidden cards]
 - Player 🤖 : [card 1', card 2', card 3', ... hidden cards]
- 2 stacks are on the table, they start with one card:
 - Stack 1 : [random card]
 - Stack 2 : [random card]
- Individual cards:
 - { shape count: 3, shape: ✨, shape color: ● }

How does the game run?

- How do we make a move?
 - Player 😊 picks card 3
 - Player places it on top of Stack 1
 - Others verify that at least one feature between card 3 and Stack 1 top card matches
 - Our table now looks like this:
 - Player 😊 : [card 1, card 2, newly revealed card, ... hidden cards]
 - Stack 1 : [card 3, random card]
- How do we determine the winner?
 - When a player is out of cards
 - Player 🤡 : [] We got a winner 🎉 !
 - Sorry everyone who was rooting for Player 😊

Testing the game

- All go to the webpage for our game
- Get a volunteer to play a example game.
- Make sense of server logs. (Make sure the logs include all the steps from the game)
- Everyone plays an example game

Changing the game

- How can we change the game? Would this change go on the client or the server?
 - Display remaining card count of other players.
 - Reveal an additional card
 - Display emoji of the player who's card is on top of the stack
 - If player makes a wrong turn, give them an extra card
- Implement the change
- Let the volunteers play the game

Closing notes

- How did we apply engineering design process today?
 - Research - played the game
 - Imagine, Plan - described in plain english how the game would work
 - Create - implemented the first draft
 - Tested and improved it as a group
 - Had fun!
- Remember to stay curious and try a bunch of things

Q&A

- Presentation link
- Tools used colyseus, react, ngrok
- It took me ~24 hours to prepare this