

A stylized illustration of Hogwarts Castle at night, perched on a rocky cliff. The castle features numerous spires and towers, some with glowing windows. The sky is a deep purple and blue, with faint, wispy clouds. The overall mood is magical and mysterious.

# **Hogwarts Spellstorm: A Magical VR Experience**

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# Project Overview



## Immersive VR Spell-Casting

Set in the beloved Harry Potter universe



## Dual-Input System

Combines hand gesture & voice recognition



## Magical Battles

Experience magical battles



## Tech Stack

Built using Unity, Wit.AI and Sentis+ML model



# Unleash the Game's Spell Arsenal

## Protego

A Shield Charm used to protect the caster from incoming spells or physical attacks



## Bombardo

Creating magical explosions at targeted locations



## Stupefy

Stunning opponents with precision casting



## Expecto Patronum

Conjuring protective magical barriers





# Technical Innovation

## 1 Gesture Recognition

Advanced pattern matching for wand movements

## 2 Voice Integration

Wit.ai processing for spell incantations

## 3 Visual Effects

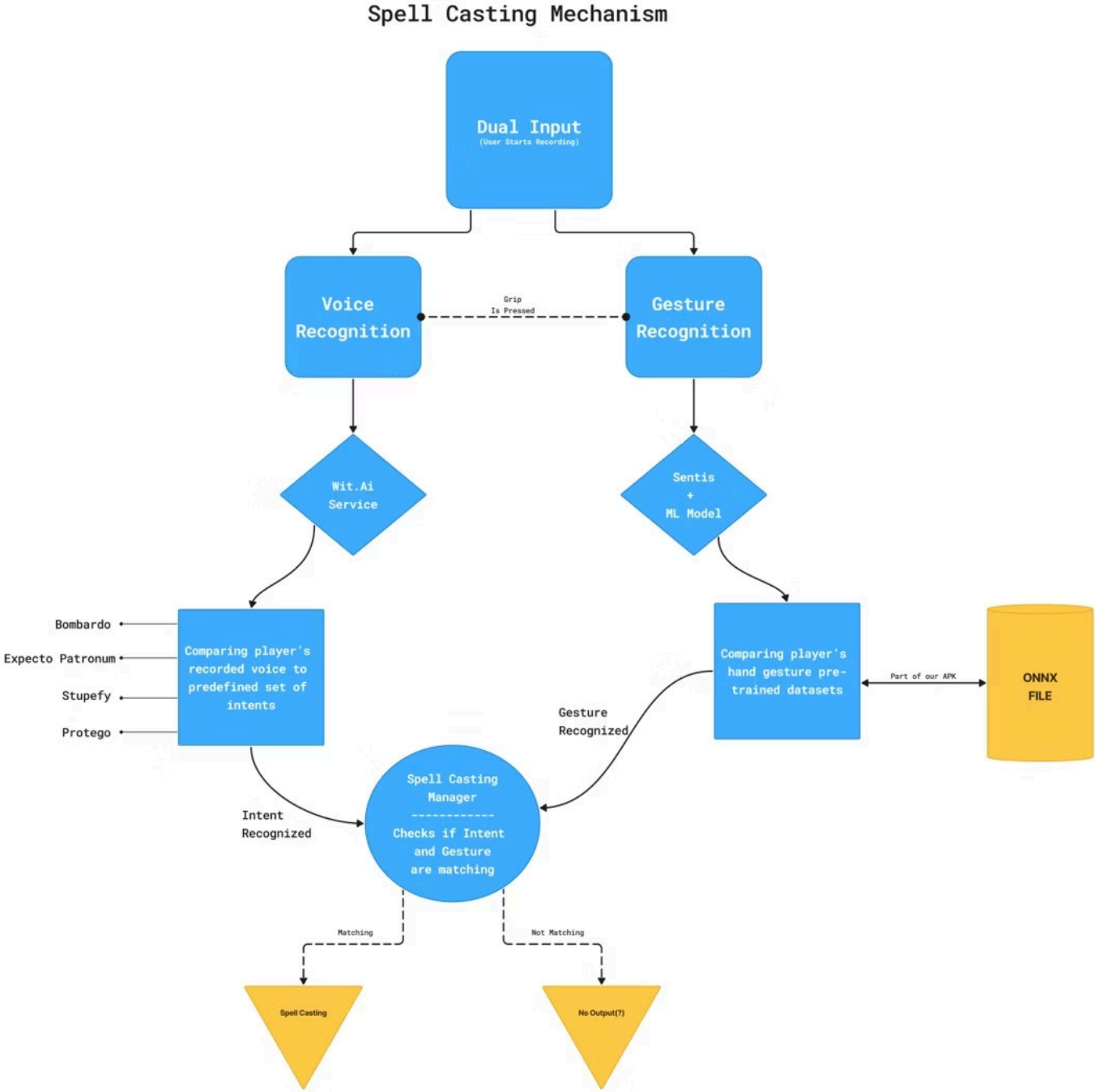
Real-time spell trails and particle systems

## 4 Physics System

Dynamic interactions between spells and environment



# Spell Casting Mechanism



# User Experience

## Intuitive Controls

Natural wand movements tracked with precision

Voice commands feel authentically magical

Easy to learn, difficult to master



## Sensory Feedback

Colorful spell trails follow wand movements

Spatial audio for immersive spell effects

Haptic feedback enhances spell casting

# Development Challenges

## Input Synchronization

Aligning voice and gesture commands



## Recognition Accuracy

Perfecting gesture pattern matching



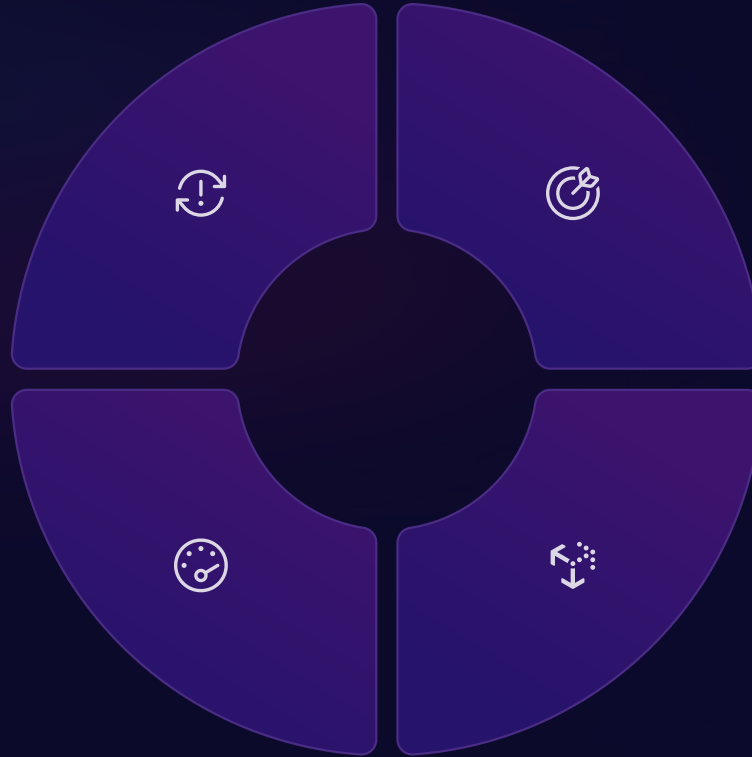
## Game Performance

Optimizing both gameplay and visuals



## Unity's Learning Curve

Mastering Unity's environment





# Time for Demo and Q&A







# Future Enhancements



## Expanded Spellbook

More spells and magical abilities



## Enhanced Visuals

Next-gen spell effects and environments



## New Locations

Iconic wizarding world environments