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# Introduction

The projects aims at developing an augmented reality model that allows user to interact with the outside environment with inbuilt mobile camera and be able to see project of AR in that real environment

This project will have it front-end developed in React Native, JavaScript for the back-end NodeJS will be used.

# Proposed Work

The development of the application in build into several parts that include different timeline s of the software to be handled, that is the GUI building for the application and then the user related data storage on back end and then comes the most important on that is linking camera with the AR module:

- Development of UI for the mobile application
- Development of server side databases and algorithms
- Implementation of data analysis factors and algorithms which will start to accept data from camera and argument backend data on it.
- Analysis of gathered data by cron jobs at day to day job for a better data prediction models
- Display of feature augmentation on user interface

# Objectives

Main objectives of the project are:

- A step further in the learning more bout Augmented Reality
- A fun and cool app for children and other to play with while being fascinated by Science.
- A step further in making a real AR game that may be a one of its kind.

# Methedology

## Augmented Reality

Augmented reality (AR) is an interactive experience of a real-world environment where the objects that reside in the real-world are "augmented" by computer-generated perceptual information, sometimes across multiple sensory modalities, including visual, auditory, haptic, somatosensory, and olfactory

Augmented reality (AR) adds digital elements to a live view often by using the camera on a smartphone. Examples of augmented reality experiences include Snapchat lenses and the game Pokemon Go. Virtual reality (VR) implies a complete immersion experience that shuts out the physical world.

# Technology and Software Requirements

## JavaScript

JavaScript often abbreviated as JS, is a high-level, interpreted programming language. It is a language which is also characterized as dynamic, weakly typed, prototype-based and multi-paradigm.

Alongside HTML and CSS, JavaScript is one of the three core technologies of the World Wide Web. JavaScript enables interactive web pages and thus is an essential part of web applications. The vast majority of websites use it, and all major web browsers have a dedicated JavaScript engine to execute it.

## React Native

React Native is a JavaScript framework for building native mobile apps. It uses the React framework and offers large amount of inbuilt components and APIs. React Native lets you build mobile apps using only JavaScript. It uses the same design as React, letting you compose a rich mobile UI from declarative components. With React Native, you don't build a mobile web app, an HTML5 app, or a hybrid app; you build a real mobile app that's indistinguishable from an app built using Objective-C or Java. React Native uses the same fundamental UI building blocks as regular iOS and Android apps. You just put those building blocks together using JavaScript and React.

## Python

Python is an interpreted high-level programming language for general-purpose programming. Created by Guido van Rossum and first released in 1991, Python has a design philosophy that empha- sizes code readability, notably using significant whitespace. It provides constructs that enable clear programming on both small and large scales. In July 2018, Van Rossum stepped down as the leader in the language community after 30 years.

## iOS and Android

iOS (formerly iPhone OS) is a mobile operating system created and developed by Apple Inc.exclusively for its hardware. It is the operating system that presently powers many of the company's mobile devices, including the iPhone, iPad, and iPod Touch. It is the second most popular mobile operating system globally after Android.

Android is a mobile operating systemdeveloped by Google. It is based on a modified version of the Linux kernel and other open source software, and is designed primarily for touchscreen mobile devices such as smartphones and tablets. In addition, Google has further developed Android TV for televisions, Android Autofor cars, and Wear OS for wrist watches, each with a specialized user interface. Variants of Android are also used on game consoles, digital cameras, PCs and other electronics..

# Major Project Synopsis

on

# Augmented Reality

In the partial fulfilment for the award of

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE AND ENGINEERING


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**October, 2019**