

Education

2016 - present	IIT Gandhinagar	B.Tech (Comp. Science and Engineering)
2015	Shiv Jyoti	Class XII

Internships

- **PICT; Prof. David Parkinson; July '18 - Present**
 - PICT is an initiative led by faculty at the University of Saskatchewan working together with colleagues at international partner institutions. It offers established and emerging faculty worldwide the opportunity to teach collaboratively.
 - As the sole developer of the project, my work was to develop an LMS website with an in-house conference system, as well as a social network system for PICT.
- **WhatBox Ent. Pvt. Ltd; 24th May '18 - June '18**
 - Worked in a team of two on developing a Quiz game in Unity which consists of different types of Questions, which are generated by the server in real-time. It also has Time based quizzes.
 - I worked on handling all of the Quiz mechanics and Logic as well as the UI of the game.
 - Also created a Reusable and Scalable word finding mechanism for the Grid, which can be exported as an independent and easy to use Unity Package.

Projects

- **Creating 3D face models with different expressions using a single 2D image as Input: Prof. Krishna Prasad; August '18 - November '18**
 - The project included bridging existing neural networks to create a black box, which will take a single frontal facial image as an input and will give 3D face models with different expressions as outputs
- **Convolution using Systolic Arrays: September '18 - November '18**
 - The project involved implementing a Matrix Multiplier using Systolic arrays on Basys 3 FPGA board.
 - Then using the Matrix Multiplication model for carrying out Convolution on a stored image and displaying the convoluted image on a display using VGA.
- **HyperPoetry Level 1 for Digital Humanities: March '18 - April '18**
 - This project is an initial attempt to bridge the philosophical thought of 'Continuum Theory' and the concept of Hypertext through the use of poems that have the subject matter of 'infinity' as its core.
- **Simulation made in Unity for Modelling of Real gas using a Pendulum in a Capacitor; November '17**
 - In this project, a Pendulum was modeled between two charged capacitor plates. The results obtained were similar to the experimental values.
- **Games, Gamers and Gamification; Prof. Pedro Pombo; July '17 - November '17**
 - The main aim of this project was to learn about Gamification, how to implement it efficiently and finding various opportunities for implementing it in India.
- **Making games for the Curiosity Lab at IITGN; Prof. Jaison Manjaly; December '17 - April '18**
 - Making Curiosity based games on Unity for children to enhance their learning ability and collecting the data for further analysis.
- **Using Gamification to Solve Traffic Problems; December '17**
 - The project was made for the Workshop on Design and Cognitive Intervention for Large-Scale Social Concerns which was jointly organized by IITGN (IIT Gandhinagar) and JAIST (Japan Advanced Institute of Science and Technology).
- **Design Project; July '17 - October '17;**
 - Designed and developed a Gamification based app using Unity for school children to help them understand subjects like History and Maths better by using AR and other Game elements like Points, Leaderboards and Multiplayer Quizzes.
- **Gamification of Cognitive Science Experiments; December '17 - April '18**
 - This project aims towards transforming Mundane Cognitive Science experiments more Engaging.
- **Making Virtual Environments; December '17**
 - The project involves making Virtual Reality environments for the treatment of Stroke Patients using Vizard5 and SketchUp.
- **PlayPro Digis; September '17**
 - Top-down shooter game developed using Unity, which has 200+ downloads across 11 Countries.

Skills

- **Game Engines:** Unity3D, Construct 2 / 3, Unreal Engine
- **Platforms:** Android, PC, WebGL, Google Cardboard, Vuforia.
- **Character and Environment Development:** Blender, WorldViz Vizard 5, Make Human, Google SketchUp
- **Digital Design Softwares:** Inkscape, Adobe Photoshop, Adobe Illustrator
- **Programming Languages:** C#, Python, Matlab, Verilog, Lua, C++, HTML, CSS, JavaScript, PHP

Relevant Courses

- **Nature inspired Computing;** The course focuses on adaptive learning systems (Neural Networks, Fuzzy Logic, and Genetic Algo.), with emphasis on nature-inspired learning methodology.
- **Fundamental Neuroscience**
- **Interface Design**

Achievements

- **Technical:** i) 1st Position in Child's Play, Game development competition held by DiGiS (formerly DICE), game development club of IITGN; April '17
ii) 2nd position in AR Game development competition held by DiGiS; March '18
- **Cultural:** i) 1st position in Online Photo Story in 2nd Inter-IIT Cultural Meet; December '17
ii) 3rd position in 48 hours Short Filmmaking Competition in 1st Inter-IIT Cultural meet; Dec. '16

Positions of Responsibility

- **Secretary, 16Pixels IITGN, Photography club of IITGN; May '17 - April '18**
- **Event Organiser, DRA, Amalthea '17 (Technical summit of IITGN):**
 - Saved Rs.15,000 by strategically minimizing expenses for team Amalthea.

Extra-Curricular Activities

- Have developed over 30 different games for PC, Android, and Cardboard in last year.
- Conducted different workshops on Game Development with Unity for DiGiS and IITGN student community and played a major role in spreading the Game Development culture in IITGN.
- A teacher at "Chetana" by NYASA, which focuses on teaching underprivileged children for free.
- Was part of the IITGN-JAIST joint workshop on Design Interventions for Large-Scale Social Concerns.
- Was part of India Ki Khoj, a social interaction program for students of IITGN, CalTech and JAIST.
- Senior mentor of "DiGiS" (Game dev club of IITGN), member of "Health Club" (2016-17), Designer for BYTES (in-house magazine of IITGN), member of "Alumni Association" (2016-17)
- Event Organiser for Ignite 3.0 (Tech-fest of IITGN), Blithchron'17 (Cult-fest of IITGN), BlithMun (MUN by IITGN) and International Conference on Safety 2016

Showcase reel showing the projects made by me

- https://youtu.be/ess4__OG-_0

Github Repo

- <https://github.com/Kshitij08>