

669-234-2775 | [nihav.jain13@gmail.com](mailto:nihav.jain13@gmail.com) | <https://www.linkedin.com/in/nihavjain>

## Skills

<b>Languages</b>	C++, C, C#, Java, ActionScript 3.0, Python, Assembly (68k and 8086)
<b>IDEs</b>	Visual Studio, Eclipse, NetBeans, XCode, Flash Develop
<b>Game Engines</b>	Unreal Engine 4, Unity 3D
<b>Version Control</b>	Perforce, Git, Subversion
<b>Web</b>	PHP, MySQL, JavaScript (incl. AngularJS, JQuery), HTML5, CSS3
<b>Others</b>	Oculus SDK (Unity3D), Box2D, HTML5 Canvas, OpenCV, Adobe Flash, Adobe Photoshop, JIRA

## Experience

### THE CHANNELER | LEAD PROGRAMMER | DECEMBER 2015 – PRESENT | UCF FIEA

- The Channeler is a role playing game for PC, which uses eye-tracking as the core game mechanic, being developed in Unreal Engine 4, in a team of 13 graduate students at FIEA
- Extended the Tobii EyeX Unreal C++ plugin (for eye tracking) to detect blinking, status of individual eyes, head tracking and modified the plugin interface to be more friendly for gameplay programmers to use
- Developed data visualizers in C# for all the collected gameplay analytics
- Wrote a “storytelling” API in C++ for Unreal Engine to control the flow of scripted events and branched dialogue trees. Also created a visual front-end tool for the same, using HTML5 SVG, wherein the producers could draw the scene with branching conditions and references to dialogue audios

### C++ DATA DRIVEN GAME ENGINE | PROGRAMMER | JAN 2016 – APR 2016 | UCF FIEA

- Developed in C++11 and uses XML as a scripting language
  - The scripting language supports arithmetic and logical expressions, function calls, loops and branching statements
  - Implemented an asynchronous event system, object factory and a runtime dynamic data-type storage system
  - Coded STL replacements for common data structures like Hashmap, Vector, Stack, Linked List and Graph

### C++ CROSS PLATFORM GAME | PROGRAMMER | DEC 2015 | UCF FIEA

- A cross-platform version of Angry Birds using C++ / OpenGL for PC and ported it to C++ / DirectX for the original XBOX
  - Wrote a platform agnostic XML driven level design and sprite animation system
  - Ported Box2D and TinyXML desktop libraries to XBOX

### PIPE THAT UP | PROGRAMMER | FEB 2016 – APR 2016 | UCF FIEA

- Android game developed in Unity3D / C#, uses the hydraulic analogy to teach high school students the concepts of electricity
  - Developed algorithms to validate laws of electricity for circuits consisting of complex series and parallel connections

### KITE FITE | PROGRAMMER | SEPT 2015 | UCF FIEA

- Kite Fite is a 2 player game developed in Adobe Flash / AS3.0, where you have to knock out the opponents kite using a weapon attached to the tail of your kite
  - Developed a “*weapon creation tool*” in ActionScript for the producers to experiments with different shaped weapons and its attributes like speed, damage and rope flexibility

## Education

### UNIVERSITY OF CENTRAL FLORIDA | FLORIDA INTERACTIVE ENTERTAINMENT ACADEMY |

#### M.S. IN INTERACTIVE ENTERTAINMENT | AUG 2015 – DEC 2016 (EXPECTED)

- Masters degree program in video game development – Programming track

### BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE, PILANI, INDIA |

#### M.SC. (TECH.) INFORMATION SYSTEMS | 2011-2015

- 4 year undergraduate program equivalent to a B.S. in Computer Science degree