# Akshay Patel
## Game Programmer

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## Profile

Game developer with 3 years of experience in game development having enhanced knowledge of various programming languages like C#, C++, and Java with extensive expertise in Unity engine. Proficient in various platforms, Languages, Algorithms, Architecture, and making tools for game engines. I have experienced in creating ***Local Multiplayer, Hyper Casual, Action, Racing and Arcade games***.

## Experience

### Game UI Designer

**Awakeen Studio**, Ahmedabad / Dec 2018 – November 2019

- Work closely with the design and technology teams to conceptualize and prototype interface. functionality, look, and feel
- Created prototype to solidify design direction and plans.
- Designed and created UI components (ex. Menus,in-game HUD elements, etc.)
- 2 titles from per-production to ship, as a member of a development team.

## Skills

- **Programming Languages** *:* C#, C++, Java, HTML, CSS ,SQL
- **Design Patterns :** Factory Pattern, Observer, Singleton, Object Pool, Top-Down Architecture
- **Collection :** Dictionary, List, LinkedList, Stacks, Queues, Enums
- **Serialization :** XML, Json, Binary, Text
- **External Libraries/Software :** Unreal Engine, Eclipse, DaVinci Studio, Photoshop, OpenGL, Git, GitHub for Windows, IntelliJ, Visual Studio, Word, PowerPoint, Excel.
- **AI Algorithms :** State Machines, A-Star, Flocking AI, Genetic AI, GOAP, Binary Tree
- **Management/Debugging :** Agile Scrum, Jira, Trello
- **Database :** MSSQL Server Workbench, SQL Server
- **Unity :** Editor Scripting, Editor Variables/Menus, UI, Physics, Animations, Sound, Particle Systems, Controller Support, Nav Mesh, Image/Tile Filling, Materials and Lighting, Shader Development, Rewired, Unity Input System, Local Multiplayer Support, Unity ECS-DOTS, Lambert Lighting, PBR (Physically-Based Rendering), Pro Builder.
- **IDE and Other tools :** Visual Studio, VS Code, Eclipse, Unity Engine, IntelliJ Idea, PyCharm, Microsoft office, Excel, Davinci Studio, Photoshop.

# Game Projects

### Arrow Maniac | PC

- Arrow Maniac is a 2D Platformer, local multiplayer game where players fight each other using various arrow and abilities  in a fast-paced environment.
- In this game I created **All Maps**, **Abilities** and **Game UI** using Shaders, Unity particle system, Tile map, Time Manager, 2D Animation etc.
- *Source Code*


### Space Bomber | PC

- Space Bomber is a Top-down 3D wave survival game.
- In this game I created **All particle effects**, **Levels**, **Ammo System**, **Wave system**, **UI**, and **3 types of Bombs.**
- *Source Code*
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### Super Quick Saving | PC

- Real-time data saving and loading using **JSON, Binary** and **XML data serialization** techniques.
- ***Source Code***


### Flocking AI  | PC

- A 3d unity AI project to demonstrate flocking AI behavior in fishes.
- To achieve realistic looking flock behavior I created a **Predator and Pray relationship** between all types of fishes.
-  Big Fishes(**Predator**) will try to hunt down small fishes(**Pray**) and small fishes will try to avoid them while staying as a group and searching for fish food.
- *Source Code*


### Unity Editor Tools | PC

- The **Color Editor tool** that help to color the texture and then later on that texture can be applied on different 3D objects.
- I also created one **Object control tool** using which you can add, remove, duplicate and change position of the objects in array directly from unity inspector.
- *Source Code*


### Goop Soup | PC

- Goop Soup is a 2D, top down, survival game.
- In this game you can create different color of spells using different color of plants.
- To kill the enemies you have to hit them with same color of spell.
- I have created this game with strong **singleton architecture** and it's extremely easy to **add new** type of enemy or any other features in the game.
- *Source Code*

# Education

**Video Game Programming |** Jan 2020 – Present
ISI, L'institut Supérieur d'Informatique, Montreal, QC

**Bachelors in Information Technology |** Aug 2015 – Jun 2019
Gujarat Technological University, Gujarat, India

# Languages

**French –** Beginner

**English –** Proficient

**Hindi –** Native

**Gujarati –** Native