Abhay More

Portfolio | mail | linkedin.com/in/abhay-more | github.com/abhayMore

#### EDUCATION

# Savitribai Phule Pune University

Pune, MH

Bachelor of Engineering in Computer Engineering - CGPA - 9.10

Aug. 2019 - July 2023

### Kendriya Vidyalaya No. 2 AFS PUNE

Pune, MH

HSC - Physics, Chemistry, Mathematics, Computer Science - 79.8%

April 2017 - March 2019

#### Kendriya Vidyalaya No. 2 AFS PUNE

Pune, MH

SSC - 8.4 CGPA

April 2007 - March 2017

#### Projects

## AMMPED - UP: A Retro Style Game $| \square | C++$ , SFML, Mongocxx, TGUI

- Final Year College Project, Bomberman clone made with C++ and SFML for graphics and MongoDB's C++ library mongocxx for online database accessibility for login info and highscore.
- Used Login Functionality with std::regex for validation.
- Implemented Design Patters like State Stack and Singleton Classes.
- Implemented autonomous Enemies having random movement behaviour
- Implemented Asset Management System to handle Textures, Sound Effects, Music.

### Doodle Jump Clone | $\square$ | C++, SFML

- Made use of Design Patterns like State Stack Pattern to handle transition of various game states.
- Character animation is implemented using animation system. Platforms are infinitely randomly spawned.
- Score is calculated based on the distance travelled.

## **<u>Boids Simulation</u>** $\mid \square \mid C++, SFML, TGUI$

- Simulated the motion of flocking of Birds as per the creator Craig Reynolds.
- The algorithm consists of 3 simple steering behaviors Separation, Alignment and Cohesion.
- 200 Boids/Objects are managed by the algorithm.
- A crude object detection is also implemented by using the separation behaviour rule.

## More Game Of Life $| \square | C++$ , SFML

- The traditional Conway's Game of Life abiding by the 3 rules.
  - \* Any live cell with two or three live neighbours survives.
  - \* Any dead cell with three live neighbours becomes a live cell.
  - \* All other live cells die in the next generation. Similarly, all other dead cells stay dead.
- Pre-loading of patterns is done using file system, patterns.ini file is use to store patterns in binary format.
- The "MORE" in this is UI for different controls and the selection of pre-loaded patterns from the pattern matrix. PS: The name "MORE" comes from my Last Name.;)

### **2D** Ray Casting Visibility $| \square | C++$ , SFML

- 2D visibility/shadow effect, useful to show which areas are visible from a given point in a top down approach.
- Algorithm generates a light map by calculating the illuminated areas from multiple light sources.
- Lines connect a source point to vertex ends and are extended. Triangles are formed from adjacent lines, resulting in a concave shape that represents a 2D Map.

#### Volunteer Experience

#### BOLDNET, Maharashtra, India

August 2019 - Present

Apr 2022 - Jun 2022

- Led youth-focused events in Personality and Leadership, Employability, and Career Development.
- Ensured flawless execution of events/activities through collaboration with VP, Secretary, and 10+ coordinators.
- Oversaw goal setting, weekly meetings, and regular performance evaluations.

#### Chapter Vice President

Oct 2020 - Dec 2020

- Maintained communication with youth, coordinators to ensure continuity of their relationship, provided assistance.
- Assisted and supported President wherever required and helped in achieving the Chapter goals.

#### Chapter Secretary

Chapter President

Oct 2021 - Dec 2021

- Worked on back-end. Tracked, recorded and maintained the data regarding overall participation.
- Helped the President with statistical analysis and achieving the Chapter goals.

## TECHNICAL SKILLS

Languages: C++, C, Python, GDScript, Bash

Engines: Unreal Engine

Developer Tools: Git/Github, Visual Studio, VS Code, Piskelsprite, Gimp, Tiled, Blender, CMake

Libraries: SFML, TGUI, tileson, ImGui, mongocxx(MongoDB C++ Driver), nlohmann/json