# COMPUTER ENGINEER

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# PROFESSIONAL SKILL

## TECHNICAL SKILL

Communication Crisis Managment

Confident Organized Presentation Leadership

C++ С OOPs Github Algorithms

**SFML** 

Visual Studio Game Dev

## EDUCATION

## Parvatibai Genba Moze College of Enginnering, Wagholi, Pune

2019 - 2023

Bachelor's Degree in Computer Engineering

- Second Year 9.64 (College Rank 2nd)
- First Year - 8.39 (College Rank 2nd)

## Kendriya Vidyalaya No. 2 AFS PUNE

2017 - 2019

HSC - Physics, Chemistry, Mathematics & Computer Science

- Percentage 79.80%
- House Captain (12th Grade)
- House Prefect (11th Grade)

# Kendriya Vidyalaya No. 2 AFS PUNE

2007 - 2016

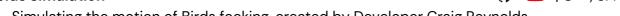
SSC

• Percentage - 84.0%

## **PROJECTS**

## **Boids Simulation**

| C++, SFML, TGUI



- Simulating the motion of Birds focking, created by Developer Craig Reynolds .
- The algorithm consists of three simple steering behavious Separation, Alignment and Cohesion.

## More Game Of Life



C++, SFML

- The traditional Conway's Game of Life abiding by the THREE rules.
- The "MORE" in this is the UI for different controls and the selection of some pre loaded patterns from the pattern matrix. PS: The name "MORE" comes from my Last Name.;)

## 2D Ray Casting Visibility



C++, SFML

- 2D visibility/shadow effect, useful to calculate which areas are visible from a given point in a top down approach.
- Algorithm calculates what areas are lit from a given light source. Having a number of lights emanating, let's say 20-30, it can build a light map showing which areas are lit up

## 2D Ray Casting



C++, SFML

- Raycasting is a rendering technique to create a 3D perspective in a 2D map. This is the first part of that.
- From this the 3D pespective is made based on an intesity level which is calculated by the length of the ray, the shorter the ray the brighter(or closer the wall would be in 3D view) and vice versa.

#### **Chaos Game**

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C++, SFML

- Method of creating fractals, a polygon and an initial point is selected at random inside it.
- Fractal is generated iteratively by plotting a "sequence of points", starting with the initial random point, in which each point in the sequence is a fraction of the distance between the previous point and one of the vertices of the polygon; the vertex is chosen at random in each iteration.
- Different fractals can be formed based on the different distance factor and sides of polygon.