

# CHAKRALA KARTIKEYA VIGNESH

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## OBJECTIVE

Master of Computer Application (MCA) student with a decent grasp of programming basics and a strong willingness to learn and improve. I'm organized, hardworking, and focused on getting better with every project. I communicate well, work smoothly with others, and enjoy taking on new challenges to grow professionally.

## EDUCATION

### SASTRA University

2024-2026

Master of Computer Applications

- CGPA: 6.7

### Prabhas Degree College (UG)

2021-2023

Bachelor's Degree, Mathematics, Electronics, Computer Science

- CGPA: 6.3

### Sri Viswasanthi Educational Institutions (12th)

2018-2020

- Percentage: 90.6

## PROJECTS

### Light Rays: Reflection and Refraction Simulation using VR

#### Technologies used: C#, Unity Engine

Developed an interactive 3D Unity XR simulation to visualize image formation in mirrors and lenses using real-time ray rendering. Enabled object manipulation with XR Grab Interactables and dynamic image positioning. Designed an educational tool to simplify understanding of ray behaviour without complex optical rendering.

#### Operation CrossFire

#### Technologies used: C#, Unity Engine

Developed a modular first-person shooter system featuring weapon pickup, weapon switching, shooting modes (Single/Burst/Auto), recoil, reloading, and ammo management. Implemented optimized weapon state handling, smooth animations, and sound integration using enums and structured manager classes.

Built a dynamic HUD system to update weapon icons, ammo counts, and UI elements in real time.

#### Flap with Caution

#### Technologies used: C#, Unity Engine

Designed and developed a light-hearted tap-to-fly game, Flap With Caution, where a clueless bird tries to dodge moving obstacles and stay airborne. Built smooth physics-based controls, collision handling, scoring, and overall game flow in Unity. Focused on creating a polished, fun, and easy-to-pick-up gameplay experience.

#### Institution Management System

#### Technologies used: Python, Django, HTML, CSS, JS

Developed a full-stack web application using Python and Django to manage student records with complete CRUD functionality. Implemented backend logic and database integration with Django, and built a responsive UI using HTML, CSS, Bootstrap, and JavaScript.

## CERTIFICATIONS

- Computer Graphics using OpenGL from Udemy
- Artificial Intelligence and Machine learning, Data Science Bootcamp from Udemy
- Mendix: Low-code Application Development(Basics) from Udemy

## SKILLS

- Programming Languages:** Python, C++, C#
- Web Technologies:** HTML, CSS, Bootstrap, Javascript, JQuery
- Backend Technologies:** SQL