

Angad Kambli

SOFTWARE ENGINEER

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Education

Indian Institute of Technology, Roorkee

B.TECH. IN COMPUTER SCIENCE AND ENGINEERING

Uttarakhand, India

July, 2019 - May 2023 (Expected)

Work Experience

Google Summer of Code - Godot Engine

Remote

CONTRIBUTOR | C++

June 2021 - August 2021

- Implemented the **pseudo-localization** feature in the Godot Engine - a game engine written in **C++**
- Researched upon and added a number of pseudolocalization features found in state of the art applications.
- Pseudo-localization, as the name suggests, simulates **localization** to ease the **internationalization** flow in multilingual projects.

Oracle India Pvt. Ltd.

Hyderabad (Remote)

APPLICATIONS ENGINEER INTERN | PYTHON, PLOTLYJS

18 May 2022 - 12 July 2022

- Performed **discrepancy analysis** on an existing Subject Line Optimization model and also worked on improving its performance
- Performed **data analysis** using various plots pertaining to the model performance to gain insights regarding the model's shortcomings.
- Researched and implemented some alternative algorithms and changes in the existing algorithms to improve the model's performance.

Projects

Rootex

IIT Roorkee

SDSLABS, IIT ROORKEE

May 2020 - Present

- Rootex is a 3D game engine written in **C++**, based on a **semi-ECS** (Entity Component System) architecture developed by SDS Labs.
- Designed and implemented an optimized content browser for the engine that allows users to view their assets without affecting the engine's frame-rate.
- Also implemented a dialogue system in **Lua** and worked upon making the cameras and their movements flexible.

Outrun Chase

IIT Roorkee

SDSLABS, IIT ROORKEE

August 2020 - Present

- Outrun Chase is a 3D multiplayer racing/shooting game made in **Godot Engine**
- Implemented major game-play mechanics and user interface, modified the multiplayer code to support a minimal NodeJS server-based multiplayer and improved the existing LAN-based multiplayer flow.
- The game was featured in the July 2021 edition of [GodotCon](#)

ProcSDF

IIT Roorkee

B.TECH THESIS PROJECT

May 2022 - Present

- ProcSDF is a completely procedural node-based 3D modelling tool that enables users to create 3D scenes from basic primitives and various operations involving them.
- It uses an **SDF based raymarching** approach to render the scenes. **OpenGL** is used to set up the rendering loop and most of the rendering code lies in the fragment shader. Behind the scenes, it generates the fragment shader automatically based on the node graph.
- Designed the architecture of the application, along with the rendering flow and implemented a number of initial systems and structures for the same.

Attendo

IIT Roorkee

COURSE PROJECT FOR THE "OBJECT ORIENTED ANALYSIS AND DESIGN" COURSE

September 2020 - November 2020

- Attendo is a mobile app aiming to streamline the attendance process in classroom settings.
- It was made using the **Flutter** framework and coded in **Dart**. It uses **NSD** to register and discover services on the network along with **socket programming** to facilitate marking attendance over Wi-Fi.
- Implemented a number of screens and set up the architecture for Network Service Discovery (NSD) and Socket Programming which was used as an API for the rest of the project by other members.

Roshni

IIT Roorkee

HOBBY PROJECT

February 2022 - Present

- Roshni is a **ray-tracing** engine written in **Rust** that I am developing as a hobby project.
- Added a number of basic primitives and materials and parallelized the code across the CPU using **Rayon** (a Rust crate)
- The goal here is to first implement all three entries from the "Raytracing in a weekend" series before moving to much more complex features.

Achievements

2020 **2nd Position**, Game Development Category in [National Level Hackathon 59 Atmanirbhar Bharat\(India\)](#)

Skills

PROGRAMMING LANGUAGES | FRAMEWORKS | TECH STACKS

C++ · JavaScript · Rust · Dart · NodeJS · ReactJS · Python · PHP · Blender · Flutter · Godot · Latex · Visual Studio · Git
· Linux · Android Studio · GitHub

Extracurricular Activity

SDSLabs

[IIT Roorkee](#)

DEVELOPER

January 2020 - Present

- SDSLabs is a campus technical group comprising of developers and designer who work on various projects pertaining to the campus and outside.
- As a member of SDSLabs, I have organized lectures, hackathons and developed a number of projects along with mentoring juniors who work on them.

Kshitij - The Literary Magazine

[IIT Roorkee](#)

MEMBER (ENGLISH EDITORIAL)

August 2019 - Present

- Kshitij is the campus literature group that is also involved in regularly publishing a magazine of the same name.
- As a member of Kshitij, I have organized and taken part in poetry events, lectures and workshops pertaining to literature.