Angad **Kambli**

SOFTWARE ENGINEER

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Education

Indian Institute of Technology, Roorkee *Uttarakhand, India*
B.TECH. IN COMPUTER SCIENCE AND ENGINEERING *July. 2019 - May 2023 (Expected)*
- Cumulative Grade Point Average, CGPA : **8.9**

Work Experience

Google Summer of Code - Godot Engine 🔗 *Remote*
CONTRIBUTOR *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 *18 May 2022 - 12 July 2022*
- Performed **discrepancy analysis** on an existing Subject Line Optimization model and also worked on improving its performance. Work involved the use of **Python** along with packages like **Matplotlib**, **Plotly**, **Pandas** for extracting insights from the data.
- Performed **data analysis** using various plots pertaining to the model performance to gain insights regarding the model's shortcomings.
- Successfully improved the model's performance by researching and implementing some alternative algorithms and tweaking the existing algorithms.

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 SDSLabs.
- Designed and implemented a content browser that enables browsing assets without affecting the engine's average frame-rate of **50 FPS**.
- 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 by working closely with designers, modified the multiplayer code to support a minimal **NodeJS** server-based multiplayer and improved the **LAN-based multiplayer** flow to make matchmaking more user-friendly and intuitive.
- The game was featured in the July 2021 edition of GodotCon.

ProcSDF *IIT Roorkee*
B.TECH THESIS PROJECT *May 2022 - Present*
- ProcSDF is a **node-based 3D modelling tool** that enables users to create 3D scenes in a completely procedural manner.
- 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.

Quizio *IIT Roorkee*
SDSLABS *January 2022 - April 2022*
- Quizio is SDSLabs' in-house testing platform built on the **MERN** stack. It uses **ReactJS** on the frontend and **NodeJS** on the backend.
- Iterated upon and implemented major frontend flows like Quiz attempting and checking along with fixing miscellaneous bugs on both codebases.
- Successfully implemented all required flows on a tight schedule in preparation for the SDSLabs' recruitment test.

Achievements

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

Skills

PROGRAMMING LANGUAGES
C++ · JavaScript · Rust · Dart · Python · HTML · CSS · PHP

SOFTWARE PACKAGES AND FRAMEWORKS
ReactJS · NodeJS · Pandas · Plotly · Matplotlib · Blender · Flutter · Godot · Visual Studio · Git · Linux · 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.
- Mentored **15+** freshers in events like Winter Of Code and organized lectures, hackathons and other events with participation of **200+** students along with **mantaining**, **developing** and **testing** a number of projects and providing mentorship to 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.