

# Gulshan Kumar

Software Engineer (Generalist), 23

3 years of work experience as mobile app developer and architect. 2 years of video engineering, graphics and on-device machine learning experience on android. 1 year of iOS development experience. 1 year of experience managing a team of three developers. Project management skills such as planning, architecting, assigning works and simultaneously tracking and managing multiple projects.

## EXPERIENCE

### **StanceBeam**, HSR Layout, Bangalore - *Lead Mobile Engineer (Generalist)*

May 2021 - present

- In charge of Android/iOS StanceBeam apps that includes planning the features to build, working with design team to come up with fluid designs, building features, debugging, testing and managing a team of 2 developers.
- Developed video/audio analysis features for StanceBeam android app viz real-time batting/bowling detection, pitch map etc., using MediaCodec, Open GLES and google's MLKit.
- Built StanceBeam iOS app for cricket bowling detection app and features like arm speed, direction and ball-type using raw data from accelerometer, gyroscope and magnetometer in the StanceBeam striker that goes on the wrist of the baller.

### **ImStrong**, WhiteField, Bangalore - *Member Technical Staff*

september 2020 - february 2021

- Built rtmp live streaming android app.
- Worked with 3D graphics and shader programming using OpenGL (GLSL), audio/video processing(MediaCodec, MediaExtractor, MediaMuxer, ffmpeg), rtmp video streaming and Mobile Computer Vision.
- Worked on real-time pose detection and activity recognition of trainees and trainers(yoga, workout and other health related practices) on android.

### **StanceBeam**, HSR Layout, Bangalore - *Software developer*

february 2020 - september 2020

- Built android app for rope skipping which counts skips using the data from accelerometer and gyroscope fixed on one end of rope.
- Built features of official StanceBeam android app including cricket batting/bowling detection in-app payments, BLE, NFC, notifications and video analytics.
- Working closely with design team to come up with simple, intuitive and fluid interfaces and app usage analytics.

### **StanceBeam**, HSR Layout, Bangalore - *Software developer intern*

november 2019 - february 2020

- Developed end-to-end android app for visual representation of data from sensors used in the StanceBeam device in real-time.
- Worked on StanceBeam portal with the web development team.

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## SKILLS

Android development, Android Video and Graphics Stack(MediaCodec, Open GLES, live-streaming protocols (rtmp & rtsp), On-device(android) Video Vision, Java, Kotlin, Swift, JNI, Python, tensorflow, keras, scikit-learn, numpy, pandas

## Favourite Authors

[Goodreads link](#)

## TECHNOLOGICAL INTERESTS

- 3D-Brain-Machine Interfaces.
- Information and probability theory
- History and evolution of mathematics and computers

## WORKSHOPS

- Cloud Computing
- Cyber Security
- Google Developer Group workshop on "Flutter"

## INTERESTS and HOBBIES

- Reading Books
- Writing
- Playing Chess, Volleyball

## EDUCATION

**Dr B R Ambedkar National Institute of Technology, Jalandhar** - Computer Science and Engineering (*dropped-out*)

July 2016 - February 2019

## LANGUAGES

English, Hindi, Punjabi

## PROJECTS (excluding the work i done at startups)

**Hostler (june- august 2018)** - *Android application for college hostel with features viz. Attendance, hostel records, complaints, mess menus, college events and related news, hostel residents' accounts, etc. and the secure server for secure transactions.*

Kotlin, Firebase, Volley

**MakePaint (04 August, 2020 - 10 august, 2020)** - *A Deep learning model called CycleGAN that can generate novel paintings. The model includes features like style transer which allows you to implement the style of one painting onto another your painting.*

Java, Android NDK, Volley

**CoachRoom (01 October, 2021 - 06 february, 2020)** - *Live streaming android app which publishes rtmp stream, with features like pose detection, filters and publishing configuration changes.*

Android Graphics and shader programming using OpenGL, Audio/Video Engineering, video streaming protocols, JNI, kotlin, Java, Android NDK, Volley, Machine learning