

GOVARTHANAN VASUDEVAN

APPLICATION PROGRAMMER

An application programmer having eleven years of experience in the distributed architecture and graphics programming. Problem solver, can-do attitude and individual contributor.

EXPERIENCES

- Present**
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May-2018
● **Software Engineering Lead**
Trimble Information Technologies Chennai
 - Design and Develop features for Trimble Earthwork's Control system
 - Primary role involves implementing graphics feature using OpenGL in android client as well as in server written in C++
- May-2018**
|
Aug-2014
● **Senior Software Engineer**
Bally Technology(Scientific Games) Bangalore
 - Designed and Developed new digital signage application with Google cloud technologies
 - Owner of media player module of Bally's CoolSign digital signage application
- Aug-2014**
|
July-2011
● **Software Engineer**
Tata Elxsi & Sony India(as a consultant) Bangalore
 - Involved in the development of sample applications and validate APIs functionalities for PlayStation 4 graphics libraries

SELECTED PROJECTS

- Present**
|
2018
● **Trimble Earthworks**
Trimble Technologies
 - Project Description:** The Trimble Earthworks Grade Control System is Trimble's next-generation grade control platform for excavators, dozers and mining machines. Reengineered from the ground up, the Trimble Earthworks Grade Control System features intuitive, easy-to-learn software that runs on an Android operating system.
 - Technology and Language used:** C++11, C++14, Google Protocol Buffer and FlatBuffers, Android, OpenGL ES3.2
 - Accomplishment:**
 - AR Camera:** Task involves calibrating physical camera using OpenCV and reconstructing 3D perspective view on top of the camera feed to achieve the augmented reality view. Also implemented functionalities to handle communication between android client and the camera to get/set specific parameters based on camera's spec. Optimized and implemented retry and synchronizing camera communication between android client and server. Optimized decoding of camera MJPEG frame in android client to reduce the latency.
 - Level and Slope design:** Developed features to allow operator to create simple level and slope design dynamically on the field/site. The task involved analyzing and incorporating changes in the existing module of the server and visualize corresponding surface with respect to machine position in android client using OpenGL.
 - Developed feature to calibrate cab rotation sensor(gives current heading information) and it involves instructing operator to perform appropriate step based on device instructions received through CAN protocol and communicating device to move on to next stage.**
 - Dig and Dump identification:** Designed and developed dig and dump identification feature for large wheel loader and front shovel based on few rules such as bucket, stick angle and machine movements.
- 2018**
|
2016
● **SG Live Media**
Bally Technologies(Scientific Games)
 - Project Description:** The main aim of this project is to design and develop cloud based digital signage product for casino industry by utilizing Google App engine cloud service and chrome APP as client
 - Accomplishment:**
 - Complete software design and development responsibility of SG Live media and its components such as server hosted in GAE and client app in chrome box**
 - Release 1:** Designed and developed common media player for both content creator and chrome app player. Used WebGL to render the content(combination of image, video and text).
 - Finalized to use Django server framework as it comes with default admin site**
 - Finalized to use Firebase API to create communication between server and client**
 - Release 2:** Delivered lot of custom features specific to casino industry such as progressive font meter, live text ...etc

CONTACT INFO

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🐙 github.com/GovanGova
☎ +91 9886269355

SKILLS

GRAPHICS LIBRARY

OpenGL 3.3
OpenGL ES 3.0
WebGL 2.0, HTML5 Canvas
Sony Proprietary Libraries
(libgnm, libgnmx)

LANGUAGES

C, C++11
HTML5
Java script(ECMA6.0)
Python(moderate)
Go(beginner)

PLATFORMS

Windows, Linux
Android - GLSurfaceView.
Knowledge about Activity
life cycle
Android-ndk

CLOUD PLATFORM

Google App Engine
Google Cloud Storage
Google Cloud SQL
Firebase API
Django Framework

OTHERS

Google Protobuff
Google Test(gTest)
Git, VS2017, Jira and Jenkins

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SELECTED PROJECTS

2018
|
2014

CoolSign

Bally Technologies(Scientific Games)

- Project Description: CoolSign is one of the best digital signage product in casino industry. Aim of this project is to provide best experience for customer through digital signage.
- Accomplishment:
- Complete Software development and maintenance responsibility for CoolSign's proprietary Media Player
- Developed new feature called Font Meter. Font meter will be used to display progressive or jackpot value whenever multiple customer are playing a game on slot machine. This feature will save content developer time since the images required for meter is directly loaded from selected font file(TTF).
- Developed Asset locking feature to lock the prepared asset in Content creator tool. Once an asset is locked, then it cannot be edited till user unlock the asset.

2014
|
2011

PlayStation 4

Sony India(as a consultant from Tata Elxsi)

- Designed and implemented sample applications to test various feature offered in libgdm and libgdmx
- Here learnt lot of techniques such as compute, tessellation and geometry shader Post processing techniques Instancing - Drawing of many instance of same polygon



EDUCATION

2011
|
2007

B.Tech in Information Technology

Anna University(Mailam Engineering College)

First class with distinction - 80%

📍 Mailam, Tamilnadu

2007
|
2005

Higher Secondary Education

Govt. Higher Secondary School

Stood first in the school with 89.3%

📍 Panamalai Pettai, Villupuram, TN

2005
|
2004

SSLC

Govt. Higher Secondary School

Stood first in the school with 89.3%

📍 Panamalai Pettai, Villupuram, TN

HOBBIES

🚴 cycling

🎧 Listening to music