

# MANIKANTA

## C++ DEVELOPER

A motivated individual with in-depth knowledge of languages and development tools, seeking a position in a growth-oriented company where I can use my skills to the advantage of the company while having the scope to develop my own skills.

### CONTACT



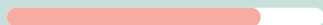
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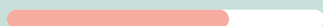
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### SKILLS

C/C++



VC++



MFC



Win32.API



STL & DLL'S

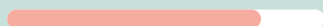


### TOOLS

Visual Studio 2019



Git/GitHub



### EXPERIENCE

Aug 2020 - Till Date

**SUSTINE SOLUTIONS Pvt Ltd.**

2.10 Years of Experience As a  
**SOFTWARE DEVELOPER.**  
Since November 2020 to Till  
Date

### EDUCATION

2020

**B.Tech | CIVIL**

Godavari Institute of  
Engineering & Technology With  
An Aggregate Of 7.28 CGPA

2015

**INTERMEDIATE | M.P.C**

Sri chaitanya junior college  
with an Aggregate of 60.8%

2013

**S S C**

Bhasyam English Medium High  
School with an aggregate 9.5  
CGPA

## PROFESSIONAL SUMMARY

- 2.10 Years of experience in software development using **C, C++11, VC++, Win32, MFC, DLL and STL.**
- Hands-On Experience in the implementation **C++ OOPS** Concepts like **Inheritance, Polymorphism, Abstraction, Encapsulation.**
- Having Experience in **STL** Containers like **vector<>, list<>, map<>, set<>, iterators** and **Algorithms.**
- Good Knowledge on **Design Patterns** like **singleton, factory, observer.**
- Good knowledge in memory management, widely used **unique\_ptr, shared\_ptr, weak\_ptr, and Move Semantics.**
- Good knowledge in Standalone **Desktop Development** using **MFC Framework** and **Win32 API's**
- Good knowledge in **Modern C++ Generic Programming (templates, lambdas, functors, concepts).**
- Good Knowledge in GUI development and worked on **Modal/Modeless Dialog Boxes** of **Win32** and **MFC Applications.**
- Good Knowledge in **MFC Framework** in **Message Map Architecture** and **Command Routing in Doc/View Applications.**
- Good experience of Debugging the builds using **Visual Studio Debugger.**
- Having Experience on **Multithreading** and **Thread Synchronization objects** like **Critical Section, Mutex** and **Events.**
- Having Experience on **Scrum** and **Agile Development Methodologies.**

# PROJECT DETAILS

## PROJECT TITLE

**CENTRICITY CARDIOLOGY ENTERPRISE (CCE)**

## CLIENT

**JOHN F WELCH TECHNOLOGY CENTER (JFWTC)  
GE HEALTHCARE, BANGALORE.**

## DURATION

**AUG 2020 TO TILL DATE.**

## DESCRIPTION

Centricity Cardiology Enterprise is an integrated cardiology imaging and workflow solution that provides a unified view of clinical images, with customizable workflows and the ability to view related radiology images. Centricity Cardio Enterprise provides remote, web-based access to a patient's imaging data across specialties, allowing the care team to easily collaborate, regardless of location.

## FEATURES

- **Coronary Analysis**
- **Stenosis Analysis**
- **Ventricular Analysis**
- **Volume Analysis**
- **Stress Echo Analysis**
- **Connect with GE Healthcare MUSE ECG System**

## STENOSIS ANALYSIS (SA)

With Stenosis Analysis (SA), users can graph and measure stenosis or blockages in a coronary vessel. SA uses clinically validated algorithms for automatic contour detection. While the edge detection algorithm is optimized, users may also manually fine-tune the automatically detected edges for higher clinical confidence.

## ROLES

- Single, and Combined orthogonal views are implemented using MFC CView Objects, for analyzing the Pre - and Post-PTCA, Vessel Analysis.
- Involved in the MFC GDI Programming, where existing reports are upgraded to include the reference image, percent are occlusion, percent diameter reduction, and size of normal and stenotic vessels (in millimeters).

## **DIGITAL SUBTRACTION ANGIOGRAPHY (DSA)**

Digital Subtraction Angiography (DSA) - DSA assists in improving the visualization of arterial shape and condition during image review. The user easily can toggle between subtracted and un-subtracted image views.

### **ROLES**

- Designed MFC CDialog Objects for parameter configurations, to implement DSA Dialog Display, which can be modified by adjusting parameters such as image mask, horizontal and vertical pixel shift, and collimation.
- Fixing the issues related to RGB objects, for Improving the visibility of the artery(ies), in contrast mode.

## **VENTRICULAR ANALYSIS (VA)**

Define diastolic and systolic outlines of the left ventricle to automatically calculate ejection fraction, a key assessment for determining the strength of the heart chamber. VA supports single plane and bi-plane analysis of left ventricular functions using the Centerline or Radial Chord wall motion algorithm

### **ROLES**

- Involved in the Coronary and Vascular Analysis.
- Implemented VA Report includes an image with appropriate traced graphic outlines, wall motion graphs, ejection fraction and other related parameters.
- Implemented volume analysis algorithm to calculate the volume of left ventricle using the Dodge Area-Length method.
- Developed GUI using MFC Framework, where Users may select different calibration styles including internal marking, cross marking or point-to-point distance.
- Implemented reports for diastolic and systolic volumes, cardiac output and cardiac index calculations.

**MANIKANTA**