Sreejesh Sreenilayam

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Experience Summary

* **16** years of experience with software development and technical lead experience.
* Very good experience in analysis, design, and development of engineering applications
* Experience and high proficiency in developing applications using **C, C++** on **Linux** and Windows platforms.
* Expertise in design, and development of **embedded** applications.
* Expertise in design, and development of web, and enterprise applications.
* Extensive experience in full software development lifecycle, **Object-Oriented System** design and exposure in Agile model of development (and scrum methodologies)
* Extensive programming skills in Linux/Widows environments, with experience in **Multithreading** and **Inter-process communication**.
* Experience in various technologies\libraries – **Qt**, **OpenSSL, LDAP, SQLite, WebView2, POCO**
* Multithreaded programming using **pthreads**
* Experience in developing applications using Typescript, JavaScript, C#
* Experience in developing web applications in .NET environment using C#, ASP.NET.Core, PostgreSQL, MS SQL
* Developed **Chrome extension** for accessing windows operating system information through chrome native messaging hub framework
* Developed **Native messaging hub** application in **C++** form communication between chrome extension and OS.
* Deployment of enterprise level Web and Windows based applications.
* Experience Cloud computing, AWS and Core Java
* Experience in the development of Medical Imaging platform development, **DICOM Viewers**, clinical applications.
* Experience specifically in developing radiology/cardiology image viewers along with PACS system.
* Exposure to onsite development at USA, Japan and Germany.
* Experience in configuration management and build and releases using **TFS, CMake, SVN**, Perforce, Jenkins
* Code Review using Code Collaborator tool
* Extensive experience in design discussions, documentation, Testing and interaction with customers during various phases of project development.
* Part of backlog grooming and management, prioritize user stories, create acceptance criteria and drive testing and delivery
* Assist product design and monitor program execution throughout product development lifecycle.
* Involved in daily stand-up and weekly Agile/Scrum meetings, grooming meetings with our team.
* Part of creating feature Definition of Ready before starting the development
* Developed device virtualization driver for device driver testing – **C**, WDK.

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| **Qualification** |

Completed BTech in Computer Science in 2006 with an aggregate 78% under CUSAT University.

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| **Summary of Skills** |

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| **Programming Languages** | C++, C, C#, JavaScript, Typescript, Core Java |
| **Tools and Framework** | Qt, .NET, ASP.NET, MVC, Web Assembly, Native Hub, Chrome Extension, Web Services, DICOM, AWS, CPPUNIT, Junit, pthreads, POCO, GDB, WebView2, PowerShell, WDM, WDK |
| **Databases** | PostgreSQL, MS SQL, SQLite, MySQL |
| **Build Tools** | TFS and Jenkins |
| **IDE / Tools** | Visual Studio, Eclipse, VSCode |
| **Testing Tools/ Others** | cppunit |
| **Version Control** | TFS, Perforce, SVN |
| **Platforms** | Linux , Windows |  |
| **Methodologies** | Waterfall, Agile SCRUM, Test Driven Development |  |

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| **Relevant Projects Experiences** |

**Client: Fujifilm America’s Corporation**

Role: Application Developer, Duration: 24 Months – Current project March 2020 – Present

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* PACS System Application: Fujifilm PACS is a web based Radiology/Cardiology DICOM image viewer.
* Analyzed, designed, developed and validated different radiology specific workflows
* Developed multithreaded client library to download DICOM images to client cache from server using C++
* Developed nodule tracker workflow using C#.NET, JavaScript
* Ported client JavaScript code to web assembly for maximum performance
* Software development was in Agile software development methodology including SCRUM
* Ported C++ code to Web assembly JavaScript to execute on web using Emscipten for more performance
* Developed an interface C++ application using Chrome messaging hub to call operating system calls using event mechanism
* Developed web application using WebView2 library
* Developed chrome extension for accessing windows operating system information through chrome native messaging hub framework
* Involved in requirement reviews of modules developed by team members.
* Involved in code reviews of modules developed by team members.
* Developed Native messaging hub application in C++ form communication between chrome extension and OS.
* Deployed the application in on Application Server and Supported the Production Releases
* Onsite assignment
* Agile and scrum methodologies

**Technology**: C++, C# .NET, JavaScript, Typescript, C#, Web Assembly, Chrome - Edge Extension, ASP.NET, WebView2, TFS

**Operating System**: Windows 10

**Client: GE Healthcare**

Role: Technical Lead, Developer, Duration: 44 Months July 2016 – March 2020

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* Platform for Diagnostic Cardiology Devices: Project includes development of custom cross platform for Medical Diagnostic Cardiology devices.
* Project includes development of custom cross platform for Medical Diagnostic Cardiology devices.
* Platform running in multiple medical products at GEHC in Cardiology devices.
  + Work part of Product definition team of specific product backlog items, work closely with development teams to ensure the output to be aligned with expectations Part of Product backlog feature grooming
  + Backlog grooming and management, prioritize user stories
  + Create acceptance criteria and drive testing and delivery
  + Agile and scrum methodologies
  + Implemented software part of printing module unit of the ECG platform in C++. Mainly part of report generator library prints ECG reports.
  + Implemented Security module for platform, which includes OpenSSL Layer and LDAP Client Library.
  + Developed ECG viewer application to display ECG reports data is fetch from locally and from Cloud support.
  + Cross platform application devolvement. Both embedded and Windows, Linux desktop applications.
  + Involved in requirement reviews of modules developed by team members.
  + Involved in code reviews of modules developed by team members.
  + Deployment using Jenkins
  + Part of technical discussions with customer during design phase and DoD
  + Part of Grooming of user stories
  + Agile and scrum methodologies
* Environment: Linux Platform (Ubuntu 14.04), Windows and ARM, C++, Eclipse

**Technology**: C, C++, C#, Eclipse, QT, Perforce, Code collaborator, Jenkins, OpenSSL, LDAP, SQLite, AWS Cloud

**Operating System**: Windows, Linux (Ubuntu 14.04) and ARM,

**Client: YRL Japan**

Role: Developer Mar 2014 - July 2016

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* Platform Dependency Detection: Platform Dependency Detection Tool analyzes, reports, and help to modify the platform dependency code contained in the source code.
* Platform Dependency Detection Tool analyzes the source code based on pre-defined rules.
* The tool helps to estimate the migration cost of application from one platform to another.
* Gathering, understanding higher level Business/functional requirements and writing

Software Requirements to develop the application

* + Onsite coordinator and gathering requirements from customer. Part of technical discussions.
  + Design and development of Platform Dependency Detection Tool analyzes the source code based on pre-defined rules.
  + Technically lead team in offshore.
  + Code review.
  + Preparation of Unit test cases and execution of test cases.

**Technology:** Java, C, C++, gdb, Eclipse, Plug-in, Junit, CPPUNIT

**Operating System:** Linux (Ubuntu 10.04)

**Client: YRL Japan**

Role: Developer Sep 2012 – Mar 2014

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* OS Emulation Layer: OS Emulation Layer includes Linux implementation of around 100 VxWorks APIs and 60 uItron APIs.
* This layer helps migration of user products from VxWorks/uItron to Linux platform.
* This project includes the development of automated test application for both functional and performance evaluation of developed APIs.
  + Requirement Analysis
  + Migrated system APIs in VxWorks to Linux APIs
  + Migrated system APIs in uItron to Linux APIs
  + Developed a API testing framework for testing the APIs
  + Ported VxWorks and uItron Application to Linux Application with the help of new emulation layer framework
  + More than 100 APIs are migrated to Linux
* Design, Development, Unit Testing, Code review

**Environment:** C, C++

**Operating System**: Linux (2.6, Ubuntu 10.04)

**Client: YRL Japan**

Role: Developer Oct 2009 – Sep 2012

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* Human Pose Recognition: The Project aims at predicting the 3D positions of body joints from a single depth image acquired by a Microsoft Kinect camera.
* A decision tree based classifier is for training a large set of data, which allows estimating body parts.
* Requirement analyses
* Design, development.
* Devolved a decision tree based classifier is used for training a large set of data which allows estimating body parts
* Unit testing

**Environment:** C#, C++, WCF

**Operating System:** Windows XP/7

**Client: YRL Japan**

Role: Developer Dec 2008 – Oct 2009

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* WDM Driver: Driver for Image Capturing System, which is to capture a single frame of image or continuous stream of image data from a camera and display the image data on the screen.
* It is for displaying still and moving image data received through image capture card.
* WDK Driver: This project was porting existing WDM driver to Windows Vista and higher. The driver architecture design followed the Windows Driver Foundation (WDF) standards as a function driver to fit in the WDF driver stack.
  + The software virtual device is for testing the driver at offshore.
  + Development and testing of Driver at onsite.
  + Involved in design, development of Capture Card Driver in WDM model for Windows XP.
  + Involved in the development of Software virtual device because hardware was unavailable.

**Environment:** C, DDK (Driver Development Kit). Windows XP

**Client: Omika**

Role: Developer Aug 2008 – Dec 2008

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* Automatic Power Plant Startup and Shutdown Testing System: The Automatic Power Plant Startup and Shutdown system performs the Startup and Shutdown of a power plant based on some complex Boolean logics, which are configured in various text files.
* The Testing system needs to create diagrams based on these Logics and set up an environment specified in the Logic.
  + Requirement analysis
  + Developed a Data acquisition tool – SCADA project
  + Waterfall software development technology
  + Design and development
  + Unit testing.

**Environment:** Windows, C, C++, C#

**Client: Hitachi**

Role: Developer Oct 2007 – Aug 2008

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* Change Dispenser: Change Dispenser (CD) is a Point of Service (POS) terminal system that is for getting changes of coins and currencies of specified denominations for larger amount at nominal service fee.
* This system targets mainly the retail shopkeepers.
  + Requirement analysis
  + Involved in design, development and testing sensor module.
  + Code Review
  + Unit Testing

**Environment:** Windows XP, C++

**Client: Hitachi**

Role: Developer July 2006 – Oct 2007

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* DNA Sequencer: The DNA Sequencer is a system used for analyzing the DNA structure.
* It determines the DNA sequence of chromosome by detecting the fluorescence spectrum using a high sensitive CCD camera.
* The focus of the project was to develop the firmware for different hardware used in the system.
  + Requirement analysis
  + Involved Design, development and testing, Integration at onsite
  + Code Review, Unit Testing

**Environment:** Linux, C++, C