

# Surya Chundru

Irving, TX

Email me on Indeed: <http://www.indeed.com/r/Surya-Chundru/4d819b433c0f8b7b>

- Over 6+ years of IT experience in software development using C/C++ in Linux, which includes user interaction, system feasibility study, requirement analysis, design, testing, development, configuration, client interaction and support.
- Expertise in the OOPS, Multi-threading, C++ STL, sockets, Exception-Handling, developing various Web services like Restful APIs depending on client requirements.
- Good experience in OOA/OOD, Design Patterns, and UML.
- Hands-on experience in embedded development using QT interface and QNX development area.
- Configuration of management tools like Git/GitHub, SVN and Clear Case.
- Development experience with XML, JSON, TCP/IP, UDP/IP, SSL/TLS multithreaded application using IPC mechanism.
- Experience in Socket Programming, IPC (Inter Process Communication), Signal Handling mechanisms under different OS/RTOS.
- Experience with serial communications including RS232, I2C, UART and SPI.
- Strong experience in automating system test and production tasks using Shell Scripting and Python.
- Strong knowledge and experience in Oracle 10g/11g database programming
- Good knowledge on IoT (Internet of Things) end-to-end application development.
- Experience with application migration to cloud platforms like AWS.
- Proficient at debugging code. Acted as second and third level support at various positions.
- Knowledge of Machine-Learning, data science, algorithms and associated tools.
- Excellent problem solving, debugging, log analysis and customer interfacing skills with the ability to manage multiple projects and meet deadlines.
- Good experience on Different Software development methodologies like Waterfall, Agile and Excellent contributor on Implementing and practicing Agile Based Process management.
- Strong interpersonal and communication skills, analytical and problem research/solving skills.

## TechnicalSkills:

### Programming Languages & Scripts

C, C++, C++, Embedded C, Restful, JSON, Shell, Perl, Python

### Operating Systems

RHEL, Linux, Unix, Ubuntu, Windows7/10.

### Version Control

GIT/GitHub, SVN, CVS

### Protocols

TCP/IP, UDP, CAN, Modbus, SNMP, HTTPS, SPI, I2C, LIN, RS 232, BLE, Enterprise

### Wi-Fi

### Databases

Oracle,, Microsoft SQL Server, MongoDB, AWS, SQLite

## Work Experience

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### Embedded C++ Developer

Client - ASML

April 2021 to Present

- Extensively worked on device drivers, timers and implementing cli commands
- Implemented a Restful web service client program which was used extensively to process and stored in the data base corporate actions data from various vendor feeds using C++.
- Good understanding of Design Patterns and Multithreading
- Good expertise in Software development and support (C++, C, Data Structures)
- Good Knowledge in writing Linux start-up shell scripts, Linux input sub system.
- Developed scripts using Pro\*c and c
- Worked on energy control systems
- Worked on updating the algorithms and for calculating the amount of tin droplets
- Worked on calculating the mean, max, min, median and three sigma for amount of signals in certain frequencies
- Good experience in polarian, code collaborator and jenkins
- Have a good knowledge on agile methodologies
- Good experience in documenting the bug fixes and requirements
- Worked on fixing bugs and updating the features of the present application

## **Developer**

Client - Infinera - Sunnyvale, CA

October 2020 to April 2021

Responsibilities:

- Worked on developing many different micro-services.
- Worked on containerizing many third-party applications and open-source tools
- Have very good experience on object-oriented-programming concepts in C++
- Worked in many areas of development life-cycle such as development, testing, integration and production support
- worked on resolving existing and new bugs of the existing application
- worked on enhancing the features of the applications
- worked in many development and testing environments.
- worked with many integrated tools like docker, Jenkins, coverity, jira
- worked with libraries like boost and google's proto-buff
- Developed applications for both ARM and Intel based platforms
- Extensively worked on device drivers, timers and implementing cli commands
- Worked on Linux, unix, windows environments
- Experienced in agile and water fall methodologies
- Worked on migrating application from onsite to cloud-based.
- Worked with many protocols like IP, HTTP, HTTPS .
- worked with MySQL, oracle data bases
- Developed scripts using Pro\*c and c
- worked in developing automation scripts

## **Sr. C++ Developer**

Client: - Verizon - Irving, TX

October 2019 to October 2020

Responsibilities:

- Worked on developing configuration module in C++ for Verizon Femto cell application.
- Developed Event based State machine to read XML files and populate in C++ STL datatypes for processing and config changes by user.

- Responsible for designing, implementing, testing, debugging software for Washington Interagency Telecom services (WITS) and MTAS (Mobile Telephone Authentication Service) used for SIM activation, deactivation.
- Used Python for auto generation of C++ header files for compilation.
- Extensively involved in bug fixing, blocker removals and working on story points. Work on the Low Level and High-Level Design Documents.
- Develop Job files with UNIX shell script and regular expressions.
- Contribute and build tools, bash, Perl scripts for the application and writing the Make files to compile the programs.
- Clear understanding of Document Object Model, XSD for easy navigation of XML files.
- Built a Custom Pipeline for Jenkins to automate the whole process
- Perform backend coding and testing using database SQL and PL/SQL queries.
- Experience developing applications on ARM processor and using cross compilers.
- Verify the working of the code with job in all three environments like Test, UAT, Model office (MO) and Prod.
- In Kibana worked with the metric visualization display for each aggregation.
- Worked on Containerizing (Docker) many of the Applications
- Develop Job files with LINUX shell script and regular expressions.
- Worked with Many networking Protocols like HTTP, HTTPS, XCAP, IP, LDAP
- Experience using Agile/Scrum software development methodologies on customer collaboration for and continuous requirements.

Environment: C, C++, STL, Linux, g++, gcc, gdb, multithreading, perforce, XML, XSD, Python, Agile/Scrum, git, Shell scripting

Client: -Harsco Rail

November 2018 - September 2019

Location: - South Carolina

Role: - Embedded/C++ developer

- Provide support for Production, testing and development environments.
- Developed a C++ application called 'Event Log Reader' that collects all the diagnostic Incident and Event information to handle and process any errors.
- Design and Develop the HMI screens for Trip Analyzer to configure on EMD Locomotives.
- Develop Smart Grind profile grinding analysis tool monitoring.
- Technical documentation, version management and maintaining repository system (clear case) for the code changes.
- The key skills used are C++, VC++, QNX for performing the mentioned job duties.
- Implemented a Restful web service client program which was used extensively to process and stored in the data base corporate actions data from various vendor feeds using C++.
- Designed and Implemented TCP/IP communication code to send put away Locomotive diagnostic data, information and records to the cloud.
- Utilized C++, BDE, STL, and thread pool to achieve optimal design efficiency.
- Used SVN for source code control. Implemented inter-process synchronization using semaphores to synchronize various tasks.
- Developed PL/SQL\*plus programs based on the client needs for any reports, statistics.
- Checking in the code into the Code Base by using the source code version control tool subversion.
- Good understanding of Design Patterns and Multithreading
- Good expertise in Software development and support (C++, C, Data Structures)
- Good Knowledge in writing Linux start-up shell scripts, Linux input sub system.

- Worked on Many of the third-party applications like Network time Protocol, Cadvisor, Node exporter

Environment: C++, QNX, Python, GIT, Jenkins, Confluence, Linux, Windows, SQL, XML, UNIX Shell Script , Sed, Make file, TCP/IP, Putty, SharePoint, Visual

Studio,Locomotive Toolbox, gdb Client: - General Electric Transportation - Erie, PA  
September 2017 to August 2018

Role: Embedded/ C++ Developer

Responsibilities:

- Worked as C/C++ developer with Test Driven environment and embedded software applications deployed for marine terminals.
- Port Optimizer is cloud-based software that enhances supply chain performance and predictability by delivering real time data-driven insights.
- Major role as an embedded software developer for advance Projects using C/C++ on RTOS for scheduling, planning and tracking the containers using IoT based solution using x86 platform.
- Preparing Maintenance Manual, System Description Document and other technical and function documents.
- Automation done for generating various kinds of reports by using Perl/Shell scripts.
- Responsible for coding the various components using C, C++ and Python Scripting.
- Developed applications using an openssl API which can work as encryption interface (API) between client/server.
- Involved in writing optimization techniques for more accuracy of Macros in C/C++, C and C++ routines and Oracle SQL, PL/SQL.
- Work as team developer on a variety of platforms including RHEL v7, and Linux distribution.
- Designing new software applications in C/C++ to meet business needs.
- Unit testing the programs for correctness against the requirements
- Involved in part of the integration team, which analyzed the builds and used Jenkins for integration.
- Involved in making the Test Plans and Procedures, which drives the Strategies and tools identification, Managing Test design over cross-functional teams. As well created Test Summary Reports.
- Development and Testing, certifying the programs developed on client production platforms for fixing the portability issues, Maintenance.
- Use git repository for development activities and team collaboration.
- Unit testing the programs for correctness against the requirements
- Developed C++ programs for OEM parts involves hardware for both analog and digital input/output modules.
- On-site Test Stand to verify, validate and test document for the defined outcome to client requirements.
- Migrated SVN repos to corporate Git/GitHub domain.
- Create, design and implementation of GUI for operator's HML.
- Experience with networking and application protocols like Ethernet, Wi-Fi, TCP/IP, and USB.
- Understand the software algorithms and Model-based C++ programs for embedded control systems.
- Bug tracking, issue tracking, project management and updating defect status using JIRA.

Environment: C++, STL, IoT Gateways, BLE, Multi-threading, Jenkins, JIRA, Bash, POSIX Threads, Git, BOOST libraries, OOAD, XML/JSON, Shell/Perl Scripting, NoSQL, JavaScript.

## **Embedded C/C++ Developer**

Client: - Camera Software Solutions - Hyderabad, Telangana

January 2015 to December 2015

### **Responsibilities:**

- Did programming in C on UNIX platform to contribute to the software project, which automated customized design process.
- Wrote a program in C, which converted programmer's interface between two different types of database.
- Worked on Database Performance Optimization and Tuning using EXPLAIN PLAN and implemented Index, Partitions, Triggers, Cursors etc in Oracle DB.
- Used Python based GUI components for the front end functionality such as selection criteria.
- Responsible for user validations on client side as well as server side.
- Wrote Python scripts to parse XML documents and load the data in database.
- Wrote a program in C, which parses computer logs and then displays the summary in automatically generated HTML files.
- Wrote a script in Perl, which in conjunction with version control system built a particular version of application.
- Contributed to make file project, which standardized all UNIX make files on the project.
- Wrote complete programmer's documentation for object-oriented drawing system used on the project.
- Was trained on the job in agile software practices and I am familiar with fundamental ideas of Agile practice.

Environment: C, C++, SQL, Oracle, Eclipse, PL/SQL, UNIX, Linux, Shell Scripting, Perl Scripting, UML, Python 2.6/2.7.

## **Education**

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### **Master's in systems management information systems**

Florida institute of technology

2017

### **Bachelors in Electronics and communication**

SRM University

2014

## **Skills**

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- Operating Systems
- Version Control
- Protocols
- Databases
- Libraries & Frameworks
- Build
- Tools
- Programming Languages & Scripts C
- C++

- C++
- Embedded C
- Restful
- JSON
- Shell
- Perl
- Python
- RHEL
- Linux
- Unix
- Ubuntu
- Windows7/10.
- GIT/GitHub
- SVN
- CVS
- TCP/IP
- UDP
- CAN
- Modbus
- SNMP
- HTTPS
- SPI
- I2C
- LIN
- RS 232
- BLE
- Enterprise Wi-Fi
- Oracle
- Microsoft SQL Server
- MongoDB
- AWS
- SQLite
- STL
- IPC
- POSIX multithreading
- QT/QML
- Sockets
- Signals/event handling
- SOAP web services
- Design Patterns

- Google Test
- Make file
- CMake
- Jenkins
- Eclipse
- UML tools
- Jira
- Confluence
- Polarion