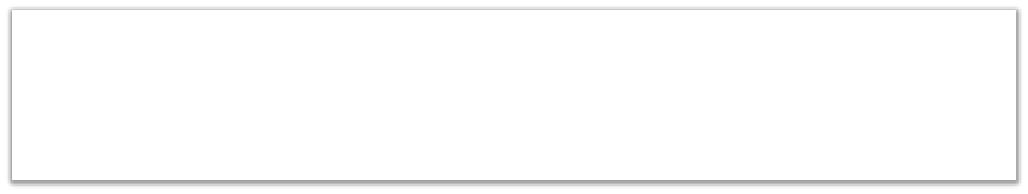
Result-oriented professional with a proven record of achievement in conceiving & implementing effective ideas; targeting top level assignments in Software Development with a leading organization of repute in IT / Software sector



**PRAVEEN KUMAR**

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# ǁ Profile Summary ǁǁǁǁǁǁ

* **Dynamic career of 16+ years** that reflects rich experience & year-on-year success in Cloud (AWS & Azure) , Mobile Platforms & Middleware, Microservices and System Software involving C++,Java VoIP, Networking & Multimedia Protocols, IOT, Kernel, and UI Automation Tools and test frameworks.
* **Problem solver with a passion for technology**; skilled in grasping big picture and applying appropriate & practical technology / mix of technologies to minimize risks:
  + Microservice Architecture
  + AWS Services (CloudFront, EMR, Kinesis, S3, EBS, ECS, RDS, Connectors)
  + Kafka (Confluent), Akka, Flink, Spark, Storm stream protocols.
  + Microservice Architecture
  + Spring Boot hibernate, JPA, JTA, JavaFx, MVC, Flux Architecture Development
  + Object Oriented Design Patterns & Architectural Patterns
  + SOA/Microservice Design Patterns
  + GUI Development, Device Drivers and Kernel Internals (Android, iOS and Symbian Platforms)
  + No Sql Database (DynamoDB, MongoDB)
  + IOT and Open Source Porting (Apple Airplay) : JukeBlox
  + MPLabx Configuration Tool Development (Microchip Specific)
  + MQTT on IoT devices
  + Protocol Stack Development - SIP/RTP multimedia protocols RFCs like 3550, 3261, 3665, 3551, 3711, 3095 and 3830) with 3GPP Specifications
* Directed **cross-functional & cultural teams** using interactive & motivational leadership; acknowledged for leading, coaching & mentoring 6 team members to achieve resource wise productivity & optimization
* A forward thinking person with **strong communication, analytical & organizational** skills; well organized with a track record that demonstrates self-motivation & creativity to achieve corporate & personal goals

# ǁ Skill Set ǁǁǁǁǁǁ

**Microservices with Cloud Services (Java , NodeJS and C++)**

## Middleware Development Design & Architectural Patterns Project Management

**Voip-Networking Protocal Stack Development / Architecture**

## Mobile -Native & Hybrid App Development

**People Leadership**

# ǁ Work Experience ǁǁǁǁǁǁ

## Since May’19 : HCL Technologies , Bangalore , India as Senior Architect

## Comprehensive knowledge in the areas AWS, Azure , Microservices , cloud Infrastructures , Application development as well as in software development tools and methods.

## Explored new digital technologies and govern the design of the ideal system architecture for the ANZ payments & MyToll (Toll Group) : ANZ region

## Lead the Software engineering team from concept to implementation for the Microservices based architecture.

## Worked closely with external Stakeholders, business Analysts and Business on understanding the business requirements, defined technical specifications and assess overall technical architecture impact.

## Provided expertise and consulting services on technologies including Reactive systems, context based , User experience , front end and backend frameworks architectural and design patterns.

## Evaluated and obtained alignment on technology standards, patterns and reference architecture ( Middleware , Multimedia protocols , Microcontroller based IOT solutions ).

## Nov’13 – April’19: Microchip (India Design Center) India Private Limited, Bangalore, India as Architect Juke-Blox (DM870 and CY920):

* Protocol Stack Development (Network Audio Player) - DLNA, Airplay & Bonjour Protocols implementation and

porting for microcontroller-based systems: Juke-Blox (DM870)

## Description:

Juke-Blox: Software Platform and SDK combine and extends many features from pervious SMSC platforms and support for Airplay music streaming and control feature (optimized fast boot time and real-time operations).

## Platform : C++, Java, MVC, Streaming protocols , Microservices, UBoot

**MCC (MPLABX Code Configurator)**

The purpose of the MCC application is to enable embedded software developers to quickly generate driver level code within the MPLABX IDE. As such, the applications takes the form of a NetBeans Platform module (Plugin-in), that must be downloaded and installed within the MPLABX IDE.

* Reduce the to implement new part/peripheral support by providing better core support.
* Additional requirements ( 3rd party module contributions , Library support ,etc).
* Re-alignment of the core architecture with changing environment (JavaFx, Persistence Model)
* The MCC makes use of what is often called a **Service Oriented Architecture** to minimize dependencies between different system components. This design pattern relies on a number of services to be defined. Each of these services are exposed to the consumers of these services through rigidly defined interfaces that are not allowed to change.

## Frameworks and Design adaptation: Java, MVC, Spring boot, Flux Pattern for modules, Token based Pub-sub messaging system.

**Motor Control Plugin:**

* Plugin implementation with UI development and UI automation test framework development.

## MCC module Development:

**Test Automation Framework development:**

UI Automation test Framework development (based on Jemmyfx and Junit libraries) to automate UI applications testing based on Script based test cases.

## Adopting to Flux architecture across the platform .

**Build Automation framework across multiple Machines:**

## Platform : MEAN Stack ( AngularJs, Express.js , MongoDB and Node.js)

**Work involves adopting ATF framework to execute testcases across multiple terminals (across different platforms) to reduce execution time.**

## IOT Framework (Master-slave Architecture):

Generic framework implementation to enable IOT into embedded devices (Microcontroller based) with AWS.

## Description:

Work involves Microservices design and exploring open source Messaging queues like MQTT, RabbitMQ, Kafka brokers and customizing as per the application framework.

* Android & iOS apps to interact with AWS and google cloud for IOT based solutions. Build

**Apr’05–Oct’13: Nokia (Symbian) India Pvt. Ltd., India as Senior Software Specialist / Team Lead** *(acquired by Accenture in 2012)*

## Role:

* Managing end-to-end software development activities including requirement analysis, design, development, troubleshooting, implementation & testing of applications
* Checking project progress and outstanding issues; ensuring the quality & timeliness of deliverables and extending post-implementation support to team members as per norms
* Interfacing with clients to gather business requirements; conducting system analysis and finalizing technical / functional specifications & high level design documents for the program
* Developing healthy relations with internal & external stakeholders to provide support for various program issues by keeping a close track on recent developments

# ǁ IT Skills ǁǁǁǁǁǁ

**Languages**: C++ (14), Java, Android, Kotlin , Swift and Objective C

**Scripting Languages**: Python

**Technologies**: Symbian, iOS, Android, Voip Protocols, OS Middleware, OS Architecture, IOT.

**Test FrameWorks**: TestExecute, CppUnit, Junit and UI Automation

**Cloud**: SalesForce and AWS

**Build Tools**: ANT, MAVEN and GRADLE

**Continuous Integration Tools**: Jenkins and Bamboo **Mobile/Embedded OS**: Android, iOS and Symbian **PC**: Windows and Linux

**Design Tools**: UML: Enterprise Architect

**IDEs**: Code Netbeans, Eclipse, Android Studio and Xcode

**OpenStack**: Node.js, Angular and MongoDB

**Web Apps**: HTML5, Jquery and Phone Gap

**Version Control**: Github, bitbuket, Synergy and Perforce

**Defect Tracking**: Bugzilla, RC and JIRA

**Code Coverage**: SonarQube, Nokia Internal Tools

**Native App Development Platforms**: iOS, Android and Symbian

**Hybrid App Development Platforms**: Phone Gap (JQuery & JavaScript)

**Open Source Projects**: POSIX - Airplay, Bonjour, Threadx, mDNS and UI Automation Framework

# ǁ Education ǁǁǁǁǁǁ

* **BE (Computer Science & Engineering)** from JNTU, Hyderabad

# ǁ Personal Details ǁǁǁǁǁǁ

**Languages Known**: English, Hindi and Telugu

**Address**: Bangalore

**Location Preference: Hyderabad / Bangalore**

# ǁ Annexure ǁǁǁǁǁǁ

## Key Projects Handled:

**At MicroChip India Pvt Ltd:**

## At Nokia India Private Limited:

Title: Symbian OS Middle Ware Services Performance Improvement Role: Architect

Technologies: Symbian C++, Qt and Symbian OS

Description: It involves Symbian Middleware components performance improvement. It includes re-architecture of few modules to improve boot uptime and users.

Key Result Areas:

* Interacting with UX Team, revising use cases and leading redesign & development
* Identifying & removing unwanted functionality in SysAp, Context Framework & Start-up components (These components provides following functionalities like events from home screen, back lights, accessories, touch events, alarms, control panel and signals)
* Executing UX team suggestions to improve user experience
* Generating the software architecture documents

Title: QT Porting for Symbian OS Middleware Services Role: Architect

Technologies: Symbian, AVkon Architecture, UIKon Architecture and QT

Description: The aim of this project was to replace AVKON with QT through understanding the requirements / generic components architecture, impact analysis & estimates, high level design, detailed design & implementation and STIF test framework adaptation. It included porting of Avkon and UiKon based Symbian Code to QT (UI).

Title: SIP Stack Role: Tech Lead

Technologies: Symbian C++, SIP related RFCs and Symbian Comms-Framework Role: One of the Lead for Transformation Team

Description: The SIP stack was originally developed by Nokia SIP Team. It was later transferred to Symbian and this was planned for 1 year. We had developed various features like storing the SIP profile in central repository, thereby making the subscription and registration timer configurable based on bearers like Wi-Fi and GPRS.

Key Result Areas:

* Fixed the bugs and led the development of features in SIP stack
* Defined KT sessions, acquired SIP stack architecture & design and prepared team best in understanding the code
* Performed requirement analysis and designed & reviewed the implementation of the features
* Understood the design and implementation of SIP Stack

## At Symbian India Pvt. Ltd.:

Title: Re-architecture of SIP and RTP Stack as per Comms Framework Role: Engineer & Lead

Technologies: Voip, SIP, RTP, Symbian and Comms Framework (Networking Design Pattern)

Description: Existing RTP & SIP stack architecture had been modified as per comms-framework (Symbian Internal Networking Framework) architecture similar to protocol layer design pattern which provided framework for implementing different layers of protocol (3 plane architecture for seamless connectivity). SIP & RTP stack was implemented as Comms protocol which was mapped to BSD socket interface (RSocket in Symbian terms). RtpShim layer had been designed to keep back ward compatibility with old existing Rtp Stack.

Key Result Areas:

* Worked as:
  + Owner and Point of Contact for RTP and Comms framework adaptation
  + Requirement Analyst for test strategies as per 3158
  + Code Review Moderator and Project Lead
* Led the complete design and re-architecture of RTP Stack and contributed to SIP stack
* Implemented RTP and SIP as CF protocol, Rtp PayLoad Formats (AMR) and Shim Layer for compatibility
* Authored Detailed Design Document for the project
* Executed Streaming Application for Real Time Streaming

## Other Projects Handled:

* Requirement Analysis Work (Multimedia Protocols) as Senior Software Engineer - RTP and Networking Domain Knowledge / Requirement Analyst