**PRAVEEN KUMAR**

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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

**ǁ Profile Summary ǁǁǁǁǁǁ**

* **Dynamic career of** **15+** **years** that reflects rich experience & year-on-year success in Mobile Platforms ,**Banking** domain with **Microservices** and System Software involving **Java , C++ ,** Voip, Networking & Multimedia Protocols,IoT, NoSQL(Cassandra), Messaging Queues , Streaming protocols ( Kafka, Akka Streams , Flink) Cloud (AWS ), 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:
* Object Oriented Programming & Aspect Oriented Programming
* Design Patterns & Architectural Patterns
* Spring, SpringBoot hibernate, JPA, JTA
* MVC, MVVM, Flux Architecture
* Microservice Design Patterns ( SAGA , Gateway , CQRS , Service Discovery ( API Connect )
* AWS Services
* No Sql Database (Cassandra, MongoDB)
* IOT and Open Source Porting (Apple Airplay) : JukeBlox
* MPLabx Configuration Tool Development (Microchip Specific)
* MQTT on IoT devices
* Messaging Queues
* Streaming protocols ( Kafka ( Apache/Confluence ), Flink, AKKA Streams )
* 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**

**Micro service Development and Architecture**

**Middleware Development**

**Design & Architectural Patterns**

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

**Mobile -Native & Hybrid App Development**

**Streams (Kafka, AKKA, Flink)**

**Messaging Queues**

People **Leadership**

**ǁ Work Experience ǁǁǁǁǁǁ**

**Since Jun’19: HCL Technologies, Bangalore, India , Senior Technical Architect/ Delivery Lead**

**Client : Australia New Zealand Bank ( ANZ)**

**Title: Open Banking**

Role: Architect

Technologies: Java, , Spring Boot, Micro services, Oracle , Redis

Patterns used: API Gateway, Circuit Broker , Pagination , Saga, CQRS

**Description:** Open Banking is a directive mandated by Australia government to empower customers with more control on their data and bring in greater transparency in services offered to them. Consumer Data Right (CDR) is established to carry out objectives in banking sector – providing customers with greater control on banking data, mandating bank to share product data and customer data with customers and sharing them with accredited third parties based on customer’s consent.

**Title: ANZx**

Role: Architect

Technologies: Java, , Spring Boot, Micro services, Confluent Kafka , Reactive Steams (Akka), Flink and Spark

Patterns used: API Gateway, Circuit Broker , Pagination , SAGA, Branching , CQRS

**Description:** ANZx refers to ANZ transformation program which is intended to transform bank towards the new age financial institutions in the growing digital world. The version of ANZx is to become the best bank for primary customer segments with principles like Digital first , human supported distribution , new purpose led customer propositions , simpler business and technology platforms.

**Nov’13 – May’19 : Microchip (India Design Center) India Private Limited, Bangalore, India as Lead / Architect**

Title: Context Middleware (IOT)

Role: Architect

Technologies: Java, Spring Boot, Micro services, Kafka, Flink, Cassandra, AWS (GreenGross)

Patterns used: API Gateway, Load Balancer, Discovery Server, Circuit Breaker

Reactive Streams: JavaJx , Kafka Concurrency Libraries

**Description:** Work involves connecting IOT devices through brokers (EMQ: MQTT) messages and maintaining states and real time contexts through micro services involving Kafka/Kafka Streams, which are under load balancing capability. Runtime contexts are defined as per the domain use cases, as few passes through EMQ brokers, Kafka broker (zookeeper) and Flink for heavy processing. States are maintained through MongoDB and transactions are backed up through Cassandra.

**Title: MicroService Design Adaptation.**

**Role: Architect/Lead**

**Technologies:** Core Java, MVC, Micro services, Token Based pub-sub messaging system, Flux Architecture, JavaFx

**Patterns applied: MVC**, Flux Architecture

**Description:**

Implemented as code Configurator tool as NetBeans plugin with MVC architecture to support UI for each configurable module with multiple instances. This work involves UI design to Code generation as per the end-user application configuration. Various services across different locations will be accessed through micro services for code verification, generation and validation of final image.

**Title:** **Test Automation Framework development.**

**Role: Architect/ Lead**

**Technologies: UI Automation libraries (JimmyFx, Junit)**

**CI Tools: Jenkins plugin**

**Description:**

Developed UI automation test framework form open source libraries (JemmyFx), to test JavaFx UI based applications by automating UI events through xml based test cases. This framework uses Jenkins capability to run tests in parallel on various application instances running on VM instance to reduce execution time.

Title: **Juke-Blox (DM870 and CY920):**

Role: Architect

Technologies: C++, Java

**Description:**

Protocol Stack Development (Network Audio Player) - DLNA, Airplay & Bonjour Protocols implementation and porting for microcontroller-based systems. 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.

**Apr’04–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

**Mar’03- Apr’04: DRDO (Defense Research and Development Organization) Programme ‘AD’ , Hyderabad as Software Engineer (Contract)**

**ǁ IT Skills ǁǁǁǁǁǁ**

**Languages**: Java, C++ Android and Objective C

**Scripting Languages**: Python, Perl

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

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

**Cloud**: Amazon Web Services - AWS

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

**Continuous Integration Tools**: Openshift , Jenkins and Bamboo

**Mobile/Embedded OS**: Android, iOS and Symbian

**Design Tools**: UML: Enterprise Architect

**IDEs**: Intellij , Eclipse, Android Studio and Xcode

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

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

**Code Coverage**: SonarQube, fortify

**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: Bangalore/Hyderabad**

**ǁ Annexure ǁǁǁǁǁǁ**

**Key Projects Handled:**

**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