

JAYAKUMAR BELLIE

IOT & SOLUTION ARCHITECT

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PROFESSIONAL SUMMARY

Achievement-driven professional with over 18 years of extensive experience in Software Development, Operational Technology (OT), Internet of Things (IoT), Industrial Internet of Things (IIoT) and the Telecom and Telematics industries. Expert in providing full-stack architecture for enterprise and proprietary rich internet application platforms using open-source technologies. Aiming to inspire innovation within the team and incorporate the latest technologies to deliver futuristic solutions for enterprise applications.

WORK HISTORY

Alstom Transportation India Pvt Ltd, Bengaluru – Senior Solution Architect

April 2019 – Present

- **Architect:** Serve as the lead solution architect for various projects, focusing on both the design and implementation phases.
- **Innovation & Incubation:** Drive innovation initiatives, fostering a culture of creativity and the adoption of new technologies.
- **Roadmap Definition:** Define strategic roadmaps for technology initiatives aligned with business goals.
- **Design Review:** Chair the review process for technical solutions, overseeing architecture design, High-Level Design (HLD), Low-Level Design (LLD), and source code for all projects executed under the Digital Factory division.
- **Stakeholder Engagement:** Collaborate with multiple division stakeholders to establish the ALSTOM_IOT SSID, securing approval from the Alstom Security Board (ASB).
- **Project Oversight:** Present project progress periodically to the Executive Steering Committee, ensuring transparency and alignment with strategic objectives.
- **Analytical Problem Solving:** Analysing the technical obstacles in the project(s) and providing the effective solution on time to minimize the impact.
- **Approval Facilitation:** Responsible for obtaining ASB approval for all IoT applications deployed by the Digital Factory, ensuring alignment with stakeholders in network, workplace, security, Identity and Access Management (IAM), and cloud infrastructure.
- **Custom Framework Development:** In alignment with the Digital Factory vision & goals, designed and developed scalable custom software IIoT Platform, IoT Stack, Application Factory (AF) framework from the scratch.
- **Power Platform Leadership:** Lead architectural reviews and deliver projects utilizing the Power Platform (PowerApps, Power BI, SharePoint), such as the "Life in XXX" project.
- **End-to-End Application Delivery:** Designed and delivered standalone solutions (like RSHM and CRIS) for Alstom's business and customer needs.
- **Azure Solutions Architect:** Provide architectural solutions for applications on Azure infrastructure, leveraging Azure services effectively.
- **Strategic Integration:** Strategize the integration of various software and IoT applications, including ConnectedTV, IoT stack, application factory framework, asset tracking, IoT Platform (Industry 4.0), IIoT Box, temperature and humidity monitoring, VPG+, BMS pilot in Lakeview, Infrastructure Facility Management (IFMS) POC, CRIS, ORCS for image analytics, and 3D printing (PiXYZ move to cloud).
- **DevOps Integration:** Spearhead the integration of DevOps practices across all applications to accelerate and enhance the efficiency and delivery.
- **Mentoring and Training:** Mentor the technical team, providing specialized training on IoT, Industry 4.0 (IIoT), Azure, operating systems, programming architecture, and overall architectural design.

Happiest Minds Pvt Ltd, Bengaluru – Architect

December 2013 – March 2019

- Architecting and Deploying: Responsible for architecting and deploying networking solutions, healthcare systems (ascend learning), and custom IoT frameworks tailored to client requirements.
- Customization of KAA IoT Framework: Customize the KAA IoT framework to align with specific customer needs, ensuring optimal functionality and performance.
- IoT Framework Design for Vodafone: Successfully architected an IoT framework for Vodafone Netherlands, enhancing connectivity and operational efficiency.
- Multifaceted Roles: Played multiple roles including Architect, Trainer, Developer, and provided onsite deployment and support to ensure successful implementation.
- Support for Testing Framework: Collaborated with the network and testing teams to build a custom testing framework to enhance product reliability and performance.

Laird Technologies Inc, Bengaluru – Application Engineer

January 2010 – November 2013

- Designing custom application for telematics devices.
 - Linux OS customization
 - Customizing web server with low footprint.
 - Built custom AT commands over Bluetooth, RS232.
- Architecting custom user interface for variant types of devices.
- Responsible for customizing open source framework.
- Played individual contributor role for any technology end to end development (like Android, Linux OS, WPF and Web technology)

Nilgiris Network Pvt Ltd, Ooty – Team Lead

May 2006 – October 2009

- Responsible for requirement gathering, design, development, deployment, code audit, delivery and customer support.
- Responsible for customizing open source framework.
- Played multiple roles like developer, team lead, testing lead, onsite deployment and onsite support.

EDUCATION

April 2006 – M.SC Computer Science – SNR SONS COLLEGE

April 2003 – B.SC Computer Technology – K.S.RANGASAMY COLLEGE OF TECHNOLOGY

COMPETENCY MATRIX

- **Operating Systems:** Linux, Windows, MacOS
- **Cloud Platforms:** AWS, Google App Engine, Azure, ThingsBoard, KAA
- **Cloud Services:**
 - **Azure:** IoT Hub, AKS, IoT SDK, ACR, DPS, APIM, Blob Storage
 - **Power Platform:** PowerApps, Flows, Power BI, Logic Apps
 - **AWS:** Lambda, API Gateway, VPC
- **Programming Languages:** Python, Java, Node.js, Dart, Android, Flutter
- **Web Technologies:** JavaScript, React, Redux, jQuery, Angular
- **Database:** MySQL, PostgreSQL, MongoDB, Cosmos DB, Azure SQL
- **Development Tools:** Eclipse, NetBeans, Visual Studio, VS Code
- **Version Control:** Git, CVS, SVN, Perforce
- **Additional Knowledge:** Microservices, Spring Boot, Node.js, HTML/CSS, PhantomJS, PHP, C#, WPF, Perl, Shell Scripting, jQuery (mobile, UI), Bootstrap, Foundation, Ofbiz, Highcharts, Browserify, Underscore, KAA, PTC.

INTERPERSONAL SKILLS

Strategy and Roadmap	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Team Management	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Problem Solving	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Decision Making	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Collaboration	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Innovation & Incubation	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Mentoring and Training	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Project Management	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Risk Assessment	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>

PROJECTS

Industrial IoT Solutions: IoT Platform, smart connected tools, MES integration, smart operations, Industrial IT.

IoT Solutions: BMS, EMS, connected products, IoT Stack, vehicle tracking solution, asset tracking solution.

Enterprise Solutions: Power platform solutions, integration with MS products.

Software Products: Healthcare (Ascend learning), application factory, web applications, PiXYZ connect, ERP solution for tea factory, telecom software solution.

Mobile solutions: Telematics device configurations, tracking & monitoring, asset tracking QR code based.

Innovation & Incubation: University collaboration projects (RSHM), defect detection solutions (image analytics), facility management.