

November 13, 2018

Re: MUTHUKUMARAN KANAGASABAPATHY

Dear Sir/Madam:

This letter is to confirm that Muthukumaran Kanagasabapathy has been offered a position of Software Developer, Applications with Larsen and Toubro Infotech Limited. As a Software Developer, Applications, Muthukumaran Kanagasabapathy will be assigned to work at our client, Citi Bank, 3800 Citigroup Center Dr, Tampa, FL 33610.

### **Project Overview**

**Client Name:** Citi Bank

**Project Name:** Citi Automation Services (CAS)

**Project Role:** Software Developer, Applications

**Project Objective:**

- Citi Automation Services (CAS) is private cloud platform for Citi. CAS provides Infrastructure as a Service (IAAS) and Platforms as a Service (PAAS) to CITI customers.
- CAS can provision containers, virtual machines, application servers, web servers, Database servers, security certificate, load balancers, Container as a Service and other middleware services.
- The Strategic vision of CAS is to provide self-service enabled Delivery and Automation of middleware products which reduce time to market and driving consistency across products and processes.
- CAS consist of various key functionalities, Application On-Boarding Dashboard - provides entry point for onboarding applications to the Middleware via CAS, Software Provisioning - Dashboard enables operations to perform installation and upgrades of middleware products based on the CAS Entitlement tools, Service Management - Dashboard provides Operations with central control of middleware runtime instances, also allowing client self-service enabled by user entitlements, Inventory Management - Enable CAS users to access and manage the data repositories held within the CAS System based on the CAS entitlement model. Integrated with ESM, Chargeback, and other systems, Configuration Management - Dashboard provides ability to hold middleware runtime configuration in the central store, where environment specific properties are separated and one configuration can have sourced for all environments builds of the application. CAS web-based platform serving customers from NAM, LATAM and ASPAC.
- CAS will eliminate all the manual dependency checkup, installation and creational steps which involve sequence of steps. The automation approach guarantees the consistency of each runtime creation and enforces the standard for middleware products.

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## **Tools and Technologies:**

### **Tools:**

Eclipse, SQL Developer, DataStax, Toad, Control-m, Autosys, Bitbucket, Version Control tools (GitHub, ClearCase, RTC), JIRA, KANBAN board, APIM, Semmlle, CI/CD Tools, Enterprise Jenkins, SonarQube, Teamcity, SOAP UI, Postman tool, BMC Release Lifecycle Management, Service Management Suite.

### **Technologies:**

Java 1.8, J2EE, JSP, Servlets, Java Persistence API, Spring Boot, Spring Core, Spring MVC, Spring AOP, Spring Security, Spring Batch, Jasper, Hibernate, Log4j, Slf4j, HTML5, CSS3, Bootstrap, Typescript, AngularJS, AngularCLI, Node.js, JQuery, LESS, SASS, Java Bean, JDBC, JBPM, POJO, Design Patterns, APIs, Apache Tomcat, WebLogic, Websphere CE, Oracle, XML, XSLT, XSL, JAXB, SOAP, REST, RESTful Webservices, RESTEasy, JAX-RS, Javascript, JSON, JMS, Maven, Junit, Windows, Linux, Docker, Cassandra, CQL, NoSQL, Apache Kafka, ActiveMQ, Apache Hadoop, Splunk, MicroStrategy BI toolset, Pivotal Gemfire, Elastic search, SCALA, SPARK, Python.

### **Job Duties:**

- Coordinating and Interacting with CITI global product engineering team for requirement analysis, story creation, providing estimates for stories, technical design document preparation for Citi Automation Services ( CAS ).
- Architect and design high quality software solution for CAS application to achieve scalability, highly available runtime Automation, Fault tolerance, virtualization and cloud services.
- Develop modularized framework for CAS global Dashboard, Workflow, Reporting platform, and Business Intelligence BI Toolset migration with enterprise integrated solution using Java, J2EE and cloud computing services.
- Design and develop highly available, responsive and interactive Graphic User Interface for the application using light weight frameworks, AngularJS, Angular Material, JQuery, Elastic search, Ajax, HTML5, CSS3 and Bootstrap.
- Architect, design and enhance CAS application with Cassandra and oracle database to store and retrieve the business data for the application with future growth taken into account.
- Develop automated test scripts to perform unit and integration testing using JUnit, Mockito, PowerMock, EasyMock libraries to ensure stability of the system.
- Coordinate and prepare implementation plans for Cloud deployment models for Infrastructure as a Service (IAAS) and Platform as a Service (PAAS) services.
- Build application deployable package using Jenkins and deploy application on UAT/PROD environment using RLM deployment tool and ensure the stability of the application.
- Report and share project progress status to Client and Project Management.
- Design and develop proof of concepts (POC) for the upcoming application functionalities.

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- Participate in continuous performance improvement of the application to stabilize and improve processes in compliance of CATE standards.
- Training, knowledge sharing and Brain storming sessions on the application and various technologies to the Citi global team.

**Job Duty:** Coordinating and Interacting with CITI global product engineering team for requirement analysis, story creation, providing estimates for stories, technical design document preparation for Citi Automation Services ( CAS ).

### **Duty Details:**

- Citi Automation Service is a multiphase project which needs thorough understanding of business requirements, perform gap analysis, and involve in brainstorm session with different stakeholders like Networking Engineering team, NSX Security Engineering team and Infrastructure & operations teams to understand the system requirements, expectation and prioritizing business criticality of the deliverables.
- Participate in sprint planning meetings, story refinement sessions, sprint demos, sprint review, product backlog review meetings and plan the deliverables.
- Highly involved in Object Oriented Analysis and designing using UML methodology like Use cases, Activity diagram, Sequence diagrams and Class diagrams. UML is the software industry standard graphical notion used for describing, visualizing, constructing and documenting the artifacts of the Software system.
- Analyze and implement Single Sign On (SSO) integration with SAML for the application.
- Promote high level view of the project and drill down into the details to obtain the requirements.
- Analyze and propose implementation methodologies, build Proof-Of-Concepts and adjust design as per the inputs/comments from project stakeholders at early stages.
- Analyze information processing, computation needs, and design computer systems using techniques such as structured analysis, data modeling and information engineering.
- Assess the usefulness of predeveloped application packages and adapt them to a user environment. Scheduling consecutive meetings with clients/stakeholders to review and signoff on the business specifications and other supporting documents.
- Coordinate with Citi managers to perform demonstration and sign off on the business requirement and the technical design for the application.

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### **Why a Bachelor's Degree in Computer Science or a related field is Required:**

Bachelor degree program prepares the ability to apply scientific and engineering principles to software systems development. Bachelor degree provides the detail theoretical knowledge about object-oriented analysis and design, case tools and software development, Computer System Architecture and software Engineering. It provide detailed study of modern software engineering principles and the methods as well as tools and techniques that support the developing a software applications. Bachelor degree develop valuable skills in analysis, design, implementation, validation and testing, all of which are required in the development of desirable, sophisticated software.

### **Time Spent on this duty:**

10% of the time is performed on this Duty

**Job Duty:** Architect and design high quality software solution for CAS application to achieve scalability, highly available runtime Automation, Fault tolerance, virtualization and cloud services.

### **Duty Details:**

- Architect design patterns, data structures and algorithms for an efficient implementation of business requirements that are captured.
- Develop reusable and modular Code in the Microservices Architecture where the separate components are developed as services.
- Architect and develop components for Single Sign-On with AD and LDAP and SAML-based Single Sign-On (SSO) for the application.
- Architect and implement Java, J2EE design patterns like Singleton, Factory pattern, Builder, Prototype, Adapter, Proxy, Façade, Business Delegate, Service Locator, MVC, Template, Mediator, Memento, Observer, DAO patterns.
- Design and develop responsive User Interface solutions that span for multiple devices using technologies Angular, JQuery, AJAX, Javascript frameworks for cross browser compatibility.
- Develop application logic to provision and manage virtual machines and images to achieve runtime automation using Java, J2EE, Spring Boot, Spring Core, Spring IOC, Spring MVC, Restful WS technologies and Object-oriented design principles.
- Develop REST APIs and published in IBM API Manager, these services are consumed by the user interface.
- Develop RESTful APIs for runtime automation with Spring Boot and Micro-services architecture which is deployable to the Pivotal Cloud Foundry and/or OpenShift.
- Develop messaging services for CAS application using the various messaging system like RabbitMQ, Apache Kafka, and other big data technologies.
- Build application deployable package using Jenkins and deploy application on UAT environment using RLM deployment tool and support UAT testing.

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### **Why a Bachelor's Degree in Computer Science or a related field is Required:**

Bachelor's Degree in Computer Science provides detail understanding and in-depth knowledge about Design, development and implements software programming applications and data analysis. It provides strong understanding of software development lifecycle and capability. Bachelor's degree involves detail study of various programming languages and study of algorithms and problem-solving methodologies which are used in real time application to design and develop mission critical system which delivers high availability and performance. Bachelor's degree familiars the expert knowledge in various software design architecture and the problem-solving ability. It provides detailed understanding of variety of the software concepts, practices and procedures.

### **Time Spent on this duty:**

10% of the time is performed

**Job Duty:** Develop modularized framework for CAS global Dashboard, Workflow, Reporting platform, BI Toolset migration with enterprise integrated solution using Java, J2EE and cloud computing services.

### **Duty Details:**

- Develop Cloud Dashboard for DEV, UAT and PROD cloud environment to manage cloud based service for end users.
- Create JBPM workflows to provide high level visibility to manage automated process and track status.
- Develop business workflows by using JBoss Business process management (JBPM) tool and these workflows are used during VM provisioning, pre-provisioning, post provisioning and production software installation.
- Develop Cloud Dashboard and workflow for onboarding products in CAS application. Automate the workflow in such a way that it dynamically identify workflow and process the product based on the product configuration.
- Design and migrate BI report Workflows to create automated cloud based processes and create auto incident ticket when an unexpected flows occurs and send failure details to support team.
- Develop Auto retry mechanism to the workflows to restart process instance automatically during workflow failure. This will eliminate manually intervention and makes process automation end to end.
- Design and develop the multi-threaded systems with the core features of synchronization, abstraction, encapsulation, polymorphism and exception handling.
- Design and develop web-based enterprise applications using J2EE technologies, JDBC, Servlets, JSPs, EJBs, JNDI, JMS, Java Beans, JPA, Log4J, Ajax, Web services, XML, HTML, AngularJS and UML.
- Develop CAS application using Spring based framework implementing Spring IOC/ Dependency Injection, Spring Boot, Spring Core, Spring MVC, Spring Security, Spring JPA, Hibernate, Java Server Faces (JSF).

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- Generate detailed technical report, analyses and discuss about continuous improvements of processes, application designs, and application execution with the stakeholders.
- Develop Database objects required for the CAS application using Relational Databases Oracle 9i/10g/11 and document DB NoSQL, Cassandra.
- Develop required Sub Queries, Stored Procedures, Triggers, Cursors, Functions and Packages using database tools Toad, SQL Developer and DataStax.

### **Why a Bachelor's Degree in Computer Science or a related field is Required:**

Bachelor's degree provides knowledge about designing complex workflows, reusable workflows, multi-process workflow by using JBPM tool. It requires highly efficient workflow to process. Bachelor degree programs provide the foundation that is directly related and applicable to what is usually required for software development .The multithreaded program

need to leverage efficient algorithms and data structures. The application also needs to leverage design patterns and best practices in object oriented programming. Bachelor degree program prepares the ability to apply scientific and engineering principles to software systems development.

### **Time Spent on this duty:**

15% of the time is performed

**Job Duty:** Design and develop highly available, responsive and interactive Graphic User Interface for the application using light weight frameworks, AngularJS, Angular Material, JQuery, Elastic search, Ajax, HTML5, CSS3 and Bootstrap.

### **Duty Details:**

- Develop Single Page Application for CAS using Angular framework which can bind data to specific views and synchronize data with server.
- Implement coding using Angular UI-Route for managing the State Transition and URL routing for the CAS application.
- Develop authentication modules for secure application log-in using Angular and security libraries.
- Create Angular services and integrate with **RESTful APIs** to **synchronously** fetch data from backend by using **promise** which include **\$http** and **\$q** service
- Implement **Factory, Service** and **Provider** to organize code and allow for easier future maintenance.
- Develop client-side form validations using **AngularJS** framework to monitor the states of the form, input fields and notify the user about the current state.
- Develop Custom Filters to organize data in a more controlled and precise manner.
- Develop Angular http directives to send GET, POST call to asynchronously pass JSON data between HTML page and server.

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- Perform integration testing and write uses cases using Karma and Jasmine
- Interact and coordinate with Testing team and other stakeholders for pre and post-production validation activities.

### **Why a Bachelor's Degree in Computer Science or a related field is Required:**

Bachelor's degree will provide fundamental study about how to build interfaces and how to apply the visual considerations. Bachelor's degree provide detailed study of computer graphics, programming techniques and algorithms, Graphics Programming, Digital Computing Fundamentals, Internet programming and web design, Visual programming which provides detail knowledge to build Graphical user interfaces. It also provides practical internship on these subjects. Bachelor degree provides study on designing and developing high-volume, low-latency applications for mission-critical systems and delivering high-availability and performance. Bachelor degree provides study on Computer graphics designs and provides practical session on learning design new web pages and interfacing its components.

### **Time Spent on this duty:**

15% of the time is performed

**Job Duty:** Architect, design and enhance CAS application Cassandra and oracle database to store and retrieve the business data for the application with future growth taken into account.

### **Duty Details:**

- Designing and implement large scale global enterprise database applicable for the CAS application.
- Design solutions to stabilize optimization of data access and resource utilization for building analytics as per requirements.
- Design Database structures that can be consumed for building CAS.
- Design database schema includes tables and views in Oracle Database, develop queries and procedures as per the business requirements.
- Develop and implement complex queries and PL/SQL stored procedures, functions, triggers and implement performance tuning techniques required for business solutions.
- Develop and implement the database concepts and write efficient quires, procedures and packages.
- Implement complex performance tuning techniques like Query optimizer, explain plan, enforcing indexes and providing appropriate Oracle Hints.
- Develop and write data to NoSql Cassandra database for various CITI internal analytical applications.
- Design and develop highly scalable and fault-torelant database configuration for CAS application.
- Coordinate with Citi managers to demonstrate on the database design and performance improvement to sign off on the design and promote code to production environment.

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**Why a Bachelor's Degree in Computer Science or a related field is required:**

Bachelor degree provide the ability to design and implement large software systems, relational database design, storage and file structure, transaction concepts, Centralized and Client Server Architectures - Distributed Databases and the competence to manage and improve software development processes. As the systems and its component services are constantly evolving, understanding of the complexity and system integration which needs more skilled software specialists. Bachelor's degree provides detailed study of Data and File Structure, Relation Database Management System, Objected Oriented Programming which provides comprehensive knowledge of the Computer Systems.

**Time Spent on this duty:**

10% of the time is performed

**Job Duty:** Develop automated test scripts to perform unit and integration testing using Junit, Mockito, EasyMock libraries to ensure stability of the system.

**Duty Details:**

- Develop automated test scenarios and environments for CI/CD automation in tools like Jenkins, Git/GitHub for performance testing.
- Analyze and identify the Root Cause (RCA) for performance issues and provide corrective actions.
- Develop automated test scripts using Junit, Mockito and EasyMock libraries and unit and integration testing.
- Develop automated scripts to provide silent installations for client and server products as well as automate repetitive tasks.
- Develop and maintain test automation tools and techniques to improve testing efficiency.
- Use risk-driven techniques to develop, maintain, and execute automated dynamic test suites required for the application.
- Generate test summary reports for product management review.
- Work with the Release Engineering team to create and maintain an automated nightly build verification smoke test to ensure the stability of the application.
- Coordinate the Performance testing activities along with the strategic partners for various platforms.
- Involve an end to end application build process and performance tuning Java Stack of application to enhance the reusability, scalability and high availability of processing frameworks by J2EE and web technologies.

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### **Why a Bachelor's Degree in Computer Science or a related field is Required:**

Bachelor degree provides detailed study of software engineering, computer software design and architecture. It provides study of software quality management which covers testing strategies, tactics, concepts and methodologies for identifying design issues. It provides details study about software development processes such as testing, diagnosing bugs, debugging, software quality management and reporting. It provides study on diverse techniques, their strengths and limitations. Based on this study these techniques are analyzed using dataflow analysis and constraint-based analysis used to enhance the performance of the application.

### **Time Spent on this duty:**

5% of the time is performed

**Job Duty:** Coordinate and prepare implementation plans for Cloud deployment models for Infrastructure as a Service (IAAS) and Platform as a Service (PAAS) services.

### **Duty Details:**

- Built Platform-As-A-Services (PAAS) for software installation into cloud virtual machine during VM provisioning request and on demand software installation. Users can do required software installation into VMs via cloud dashboard.
- Design and develop dashboard to onboard internal CATE certified middleware and database products into cloud environment.
- Develop REST API services for middleware and databases with software deployments, configuration and management.
- Develop services for provisioning of virtual machines and self-service management tools for Citi team to procure DEV, UAT, PROD environments for their application using CAS dashboard.
- Develop Restful services self-service actions like Resource modification (CPU, MEMORY and DISK), Server operations (START, STOP, REBOOT and FORCE REBOOT) and modify reservation (for VM end date).

### **Why a Bachelor's Degree in Computer Science or a related field is Required:**

Bachelor degree program prepares the ability to apply scientific and engineering principles to software systems development. Infrastructure as a Service and Platform as a Service need a solid understanding of Operating Systems, Computer Networks, Software Engineering, Data Structures and Algorithms, Object oriented programming concepts in addition to the knowledge in programming language and technologies. Bachelor degree programs provides the foundation that is directly related and applicable to what is usually required for software development. Bachelor degree fulfil the requirements to develop valuable skills in analysis, design, implementation, validation and testing, all of which are required in the development of efficient, sophisticated software.

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**Time Spent on this duty:**

5% of the time is performed

**Job Duty:** Build application deployable package using Jenkins and deploy application on UAT/PROD environment using RLM deployment tool and ensure the stability of the application.

**Duty Details:**

- Coordinate with environment management and DevOps team in defining and registration of application configuration items, the appropriate level of attributes and relations required for application deployment on production environment.
- Prepare pre and post deployment plans to support the conversion and deployment of the solution Interact with architects, analysts, project managers, developers, customer representatives, and QA managers to ensure that application solution meets customer needs.
- Participate in project-oriented work efforts in the areas of technical problem identification and resolution, performance and productivity improvement and quality enhancements.
- Resolve product and service problems by registering cases with product vendors; determine the root cause of the problem; mitigate and provide optimal approach to solve the problem; expediting correction or adjustment; following up to ensure resolution.
- Engineer automation scripts in order to improve product Time to Market, reduce errors and reduce dependency with OPS teams.
- Communicate and engage with product team to develop a strong understanding of their reporting, data and product needs.
- Coordinate with product owner to get sign-off on the root cause analysis and the suggested resolution and publish it in wiki page.
- Provide BAU Engineering support to operation teams.
- Provide runbook and support to various production incidents during business active time.

**Why a Bachelor's Degree in Computer Science or a related field is Required:**

Bachelor's degree provides study of the building application operations with a strong background in information technology and data communications. Bachelor's degree familiars the expert knowledge of various software design architecture including Client/Server, Service Oriented Architecture (SOA) coding environments. It provides foundation for Software Development Lifecycle processes and procedures for the application development. It also provides the detail study on building layered architecture and Client Server systems, It also provides detailed understand of building micro services.

**Time Spent on this duty:**

5% of the time is performed

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**Job Duty:** Report and share project progress status to Client and Project Management.

**Duty Details:**

- Develop project scopes and objectives, involving all relevant stakeholders and ensuring technical feasibility.
- Review the project/task in detail and creating work break down structure for offshore team and prioritize the work, provide clear instruction on JIRA what action to be taken on each task.
- Measure project performance using appropriate systems, JIRA tools and creating JIRA JQL scripts to generate reports.
- Review assigned projects on the LOB release plan-of-record to determine architectural significance, level of engagement, and necessary implementation effort estimates.
- Translate non-functional requirements into volumetric for systems capacity analysis.
- Provide metrics, influence, and reporting to various level senior management and architecture community.
- Participate in enterprise wide architecture governance initiatives.
- Provide estimation of project timelines and create bugs during testing phase to improve quality of project by using JIRA and other tools.
- Discuss with team and the management and provide the incremental delivery plans and generate release metrics.
- Analyze and report backlog, burndown metrics, velocity, and provide the plan to cover the backlogs.
- Maintain and manage various project module code in Bitbucket, a source control management tool for repository.

**Why a Bachelor's Degree in Computer Science or a related field is required:**

Bachelor degree provide opportunity to analyze and apply theories and concepts associated with organizations where resources are limited and time is critical. Bachelor degree focus on study of software risk, project control, monitoring, and methodologies to examining the costs and benefits of quality management. Bachelor degree provide to opportunity to learn to the soft skills associated with leadership, communication, and team building. Bachelor degree demonstrates critical-thinking skills for effective analysis in decision making and provides the implications of diversity and managing projects.

**Time Spent on this duty:**

5% of the time is performed

**Job Duty:** Design and develop proof of concepts (POC) for the upcoming application functionalities.

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### **Duty Details:**

- Analyze and propose implementation methodologies, build Proof-Of-Concepts and customize design as per the inputs/comments from project stakeholders.
- Analyze, information processing, computation needs, plan and design computer systems using techniques such as structured analysis, data modeling and information engineering.
- Design and innovate technology, cloud solutions for effective resource allocation, fast application deployment and zero downtime upgrade while you deliver rapidly iterative new design or new architecture POC as well as platform production releases.
- Work with Architects in their defined domains, review new products and technologies according to defined processes including the Citi Systems Inventory (CSI) submissions, Citi Technology Catalog (CTC), Request for Information (RFI), Request for Proposal (RFP), and Proof-of-concept (POC).
- Engage directly with internal clients and architects to create designs consistent with the Global Consumer Technology reference Architecture to drive reuse of common services and provide solutions to new requests for functionality.
- Contribute to the development of the NA Citicorp Roadmap by providing digital domain specific input for planned/funded technology initiatives.
- Promote the use of the Agile SDLC methodology to drive the high-quality on-time delivery of projects.
- Create Architecture Design Charters for architecturally significant projects and demonstrate the proposed architecture to senior approvers.
- Review designs according to the SDLC milestones to ensure adoption of the approved architecture.
- Develop Proof of concepts using responsive web design, Node.js, React.JS, HTML5, and CSS3.
- Develop Data Pipeline required for the application using Apache Kafka, Apache Spark, and Apache Storm.
- Analyze and provide architectural solutions to the existing application to improve performance, on the overall design, development, and solution of Next Generation Java J2EE based applications.
- Develop Proof of Concepts for migration of Relational database to NOSQL datastore like Cassandra, MongoDB and Redis and provide the detail report on the feasibilities of the CAS application migration.
- Analyse and develop POC for various alternative for the CAS application like replacing JMS with Apache Kafka, RabbitMQ.

### **Why a Bachelor's Degree in Computer Science or a related field is Required:**

Bachelor's degree is designed with input from industry experts and leading IT providers. Bachelor's degree provides the opportunity to expand the knowledge, fully develop and gain confidence in your software design and coding skills. It develop the skills to design, build, and maintain software critical to an enterprise, including designing and programming computer applications, upgrading computer applications and system software, building and

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managing relational database systems. Bachelor degree provide opportunity to learn and apply proof of concepts (POC) in programming and hands on practicing in Java, web application and database technologies like SQL, Oracle.

### **Time Spent on this duty:**

10% of the time is performed.

**Job Duty:** Participate in continuous performance improvement sessions to discuss opportunities to improve processes in compliance of CATE standards.

### **Duty Details:**

- Identifying potential problems and taking corrective actions necessary to ensure that the project is within scope and meets the specified deadlines.
- Manage work during each stage of the implementation lifecycle and to prepare the project for the next stages.
- Collaborate with various Line of business (LOB) technical teams, vendors and Dev Ops to identify software problems and communicate remediation plans.
- Collaborate with other Engineering teams in engineering of Business Intelligence solutions, including integrations with other related technologies such as Big Data technologies.
- Define objectives and expectations by setting standards, measuring performance and taking corrective actions.
- Review and recommend security model in compliance of CATE standards.
- Identify and record issues affecting the project, create JIRA ticket that specifies the issues including their description, type, priority, assignee and status of the issue.
- Generate and maintain report for security threats, bugs and enhancements.
- Evaluates expansions and enhancements by understanding the workload and capacity of CAS application.
- Investigate, debugging, solve problems using the assimilate information like log files, error messages and pursue leads to find root cause problem.
- Participate in performance sessions to significantly reduce in defect rates, at the cost of a moderate increase in initial development effort.

### **Why a Bachelor's Degree in Computer Science or a related field is Required:**

Bachelor's degree is specially designed to have a foundational understanding of study of Information and analysis, project management, Information security, Networking, Testing of applications and software. It develop the skills to design, build, and maintain software critical to an enterprise, including designing and programming computer applications, upgrading computer applications and system software, and building and managing relational database systems. Bachelor degree provide the opportunity to gain the critical skills a software developer needs in Information system.

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**Time Spent on this duty:**

5% of the time is performed.

**Job Duty:** Training, knowledge sharing and Brain storming sessions on the application and various technologies to the Citi global team.

**Duty Details:**

- Conduct training to improve design qualities in the code, and more generally a higher degree of internal and technical quality, for instance improving the metrics of cohesion and coupling.
- Conduct brainstorming session on the vision and perspective of CAS application and reveal the new ideas and solutions.
- Demonstrate various working sessions to the stakeholders for the capability of CAS application components.
- Conduct knowledge session on user challenges, mitigate problem, and discuss the technology solution for the challenges.
- Attend quarterly assigned training sessions to improve skills.
- Participate in global hackathon projects to apply and demonstrate the robust technologies.
- Improve existing CAS application code using trained modularized frameworks to overcome system downtime.
- Evaluate existing systems to determine effectiveness and suggest changes to meet organizational requirements.
- Research, test, or verify proper functioning of software patches and fixes.

**Why a Bachelor's Degree in Computer Science or a related field is Required:**

Bachelor's degree familiarizes the expert knowledge in various software design architecture and the problem-solving ability. Demonstrate leadership and adaptability when facing unique challenges encountered on project. Bachelor's degree provides various opportunities to expose showcase the strong written, communication and presentation skills. Also, it provides strong influencing and partnering skills. Bachelors provide the skills related to critical thinking, comprehension and problem solving. It provides through communication to explore and interact with the world, strengthen social ties, create and nurture business relationships, and facilitate the exchange of information. It provides knowledge on creating technical design documentation and user manuals.

**Time Spent on this duty:**

5% of the time is performed.

Kindly note, Larsen & Toubro Infotech Limited has a standard practice of recruiting individuals with a minimum of a Bachelor's degree or equivalent in Computer Science or a related field for this position.

**Larsen & Toubro Infotech**

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Compensation will be paid by Larsen & Toubro Infotech Limited who will be his actual employer. **Muthukumaran Kanagasabapathy** will be paid on semi-monthly basis through Larsen & Toubro Infotech Limited's payroll service provider. **Muthukumaran Kanagasabapathy** will be a W-2 employee. He will be operating under the control of Larsen & Toubro Infotech Limited's management and all activities, including managerial supervision and hiring and firing decisions, as well as performance evaluations are controlled by Larsen & Toubro Infotech Limited.

The duration of this project is ongoing and expected to exceed 3 years. The Beneficiary will work a 40 hour week.

If you have further questions do not hesitate to contact me.

Sincerely,

**LARSEN & TOUBRO INFOTECH LIMITED**

Name: Parvez Shaikh  
Job Title: Senior Account Director  
Phone # 732-248-6095

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