**Surendar. S**

**Python Developer**

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**Summary**

* Over 7 years of experience in IT industry as Python Developer in System Analysis, Design, Development, Implementation of various Client/Server, Web-based and Business applications.
* Worked with Python to create scalable and robust common components, which can be used across the application development.
* Experienced working with Python ORM Libraries.
* Created Python and Bash tools to increase efficiency of call center application system and operations; data conversion scripts, AMQP/RabbitMQ, REST, JSON, and CRUD scripts for API Integration.
* Designed multiple Python packages that were used within a large ETL process used to load 2TB of data from an existing Oracle database into a new PostgreSQL cluster.
* Cleaned data and processed third party spending data into maneuverable deliverables within specific formats with Excel macros and Python libraries.
* Experienced with Python libraries (libraries used: libraries- Beautiful Soup, numpy, scipy, matplotlib, python-twitter, Pandas data frame, network, urllib2, MySQL for database connectivity)
* Experienced in system analysis, design, development and implementation of web based and client/server application using HTML, Angular JS, Bootstrap, Node JS, CSS, JavaScript, AJAX, JSP, JDBC, XML, XSLT, Python, Django, PHP.
* Developed web-based applications using Python 3.3/2.7, Django 1.4/1.3, XML, CSS3, HTML5, DHTML, JavaScript and JQuery.
* Expertise in client scripting language and server side scripting languages like JavaScript, JQuery, JSON, DOJO, bootstrap, Node.js, Angular.js, backbone.js, Require.js.
* Experienced on Web Technologies using HTML4/5, CSS/CSS3, JavaScript, JQuery, AJAX, AngularJS, XML and JSON by following W3C standards.
* Developed Java/J2EE applications using Hibernate, XML, Android, XSLT, and applications including using Core Java concepts like OOPS, Multithreading, Garbage Collections, and Collections.
* Excellent experience of databases such as MySQL, MongoDB, Oracle 8g/9g/10g, Microsoft SQL Server, PostgreSQL, SQL/PLSQL concepts such as procedures, functions, and triggers.
* Expertise in establishing database connections for Java and Python by configuring packages like JDBC, MySQL-Python.
* Experienced in WAMP (Windows, Apache, MYSQL and Python) and LAMP (Linux, Apache, MySQL, and Python) Architectures.
* Knowledge in using python as ETL tool for data integration.
* Knowledge in working with continuous deployment using Heroku and Jenkins.
* Experienced in NoSQL technologies like MongoDB, Cassandra and relational databases like Oracle, SQLite, PostgreSQL and MySQL databases.
* Knowledge in coding and optimizing Teradata batch processing scripts for data transformation, aggregation and load using BTEQ.
* Knowledge in Create / Modify / Drop Teradata objects like Tables, Views, Join Indexes, Triggers, Macros, Procedures, and Databases.
* Created several tables as a part of data modeling and determined the performance of the table through load testing with Cassandra -stress tool and querying on data present in Cassandra cluster using CQL (Cassandra Query Language)
* Experienced with Data migration from DB2 to Apache Cassandra database, Cassandra data model designing, implementation, maintaining and monitoring using DSE, DevCentre, Datastax Opscenter.
* Worked on Python Testing frameworks like zope, pytest, nose and Robot framework.

* Worked on MongoDB database concepts such as locking, transactions, indexes, Sharding, replication, schema design.
* Configured high availability using geographical MongoDB replica sets across multiple data centers.
* Developed scripts to generate daily reports, fetching data from salesforce and CDG by calling their APIs.
* Experienced in developing applications using Amazon web services like EC2, Cloud Search, Elastic Load balancer ELB, S3, CloudFront, Route 53.
* Knowledge on ETL (Extract Transform Load) software for DB2 columnar database fact and dimension tables.
* Experience in project deployment using Heroku/Jenkins and using web services like Amazon Web Services (AWS) EC2 and AWS S3.
* Proficient in using internal tools in Pycharm, Brackets, PyDev, Netbeans and Eclipse for debugging and also worked with Sublime Text 2, Vim Editors for coding.

**EDUCATION**

**Bachelor of Technology in Electronics and communication Engineering**

JNTU - Kakinada, Andhra Pradesh 2008

**ADDITIONAL INFORMATION**

**Technical Skills:**

Programming Languages Python, Java, C, C++ Frameworks Django, Flask, Cherrypy, Node.JS, Angular.JS

Web Technologies HTML, CSS, XML, JQuery, JavaScript, AJAX, DOM Cloud Services AWS (EC2, S3, ELB), Google App Engine, Azure

Python Libraries ReportLab, HTTPLib2, Urllib2, Numpy, Matplotlib, Scipy, Pandas, Pickle, bs4 IDE's PyCharm, PyDev, NetBeans, Sublime Text2, Visual Studio Community

SQL Databases MySQL, SQLite, PostgreSQL, Teradata

NoSQL Databases MongoDB, Cassandra

Database Tools MySQL Benchmark, SQLite Expert Personal, Robomongo, TTU. Servers Apache Tomcat, IIS

Version Control Systems CVS, SVN, Git, GitHub

Operating Systems Windows, Mac, UNIX, RedHat Linux, Ubuntu, Fedora Agile Methodologies TTD, SCRUM

Protocols TCP/IP, HTTP/HTTPS, REST, SOAP

Deployment Tools Heroku, Jenkins

Issue Trackers Bugzilla, Axosoft, JIRA

**WORK EXPERIENCE**

**Role: Sr. Python Developer**

**Client: Optum Health - Minneapolis, MN**

**June' 15 to Present**

**Responsibilities:**

* Responsible for gathering requirements, system analysis, design, development, testing and deployment.
* Participated in all stages of the SDLC process.
* Developed user interface using CSS, HTML, JavaScript and JQuery.
* Wrote Python modules to extract data from the MySQL source database.
* Designed and implemented a dedicated MYSQL database server to drive the web applications and report on daily progress.
* Developed views and templates with Python and Django's view controller and templating language to create a user-friendly website interface.
* Used Django framework for application development.
* Created entire application using Python, Django, MySQL and Linux.
* Designed and managed API system development using fast http server and Amazon AWS architecture.
* Installed, configured and monitored scripts for AWS EC2 instances.
* Liaised with business analysts and manual test team leaders to perform risk analysis and assessment associated with automation testing.
* Enhanced existing automated solutions, such as the Inquiry Tool for automated Asset Department reporting and added new features and fixed bugs.
* Performed Data Driven Test with Quick Test Professional (QTP) to test the application for different sets of data.
* Implemented RESTful Web Services for the data transportation between multiple systems.
* Developed remote integration with third party platforms by using RESTful web services.
* Built various graphs for business decision making using Python matplotlib library.
* Used Python library Beautiful Soup for web Scrapping.
* Maintained Puppet rspec for testing various unit/system automation schemes.
* Worked on Jenkins continuous integration tool for deployment of project.
* Deployed the project into Jenkins using GIT version control system.
* Developed an application in Linux environment and dealt with all of its commands.
* Developed, tested and debugged software tools utilized by clients and internal customers.
* Coded test programs and evaluated existing engineering processes.
* Designed and configured database and back end applications and programs.
* Experienced in Linux shell commands and command line utilities.
* Explored and identified new technological platforms.
* Collaborated with internal teams to convert end user feedback into meaningful and improved solutions.
* Determined problems, solved them and precisely documented progress of the project.
* Actively worked as a part of team with managers and other staff to meet the goals of the project in the stipulated time.

**Environment:** Python 2.7, Django 1.4, AWS, Puppet Rspec, Jenkins, Grafana/Graphite, MySQL, Linux, HTML, CSS, JQuery, JavaScript, Apache, Linux, Git.

**Role: Full Stack Python Developer**

**Client: Citi Bank - Township of Warren, NJ**

**Aug' 14 to June' 15**

**Responsibilities:**

* Analyzed system requirements specifications and also in client interaction during requirements specifications.
* Designed the front end of the application using Python 2.7, HTML5, CSS, AJAX, JSON and JQuery.
* Worked on backend of the application, mainly using Active Records.
* Designed and developed communication between client and server using Secured Web services.
* Developed and tested many features for dashboard using Python, Java, Bootstrap, CSS, JavaScript and JQuery.
* Writing backend programming in Python.
* Used JavaScript and XML to update a portion of a webpage.
* Developed consumer based features and applications using Python and Django in test driven Development and pair based programming.
* Performed Unit testing, Integration Testing, GUI and web application testing using Rspec.
* Implemented user interface guidelines and standards throughout the development and maintenance of the website using the HTML5, CSS, JavaScript and JQuery.
* Worked on Jenkins continuous integration tool for deployment of project.
* Worked on changes to open stack and AWS to accommodate large-scale data center deployment.
* Created interactive data charts on patient portal web application using High charts JavaScript library with data coming from Apache Cassandra.
* Worked on front end frame works like CSS Bootstrap for development of Web application.
* Worked in MySQL database on simple queries and writing Stored Procedures for normalization.
* Deployed the project into Jenkins using GIT version control system.
* Learned to index and search/query large number of documents inside Elastic search.
* Used Amazon Cloud EC2 along with Amazon SQS to upload and retrieve project history.
* Creating invitation flow for customers to use the client portal for monitoring PHR pages.
* Created the environment specific settings for a new deployment and update the deployment specific conditional checks in code base to use specific checks.
* Used advanced packages like Mock, patch and beautiful soup (b4) to perform unit testing.
* Worked on translation of web pages to different languages as per client requirements.
* Updated the client admin tool to have the new features like support for internalization, support for customer service and etc.
* Implemented responsive vector maps and charts on web pages using the data from postgreSQL.
* Collaborate with Product Management and User Experience experts regarding product definition, schedule, scope and project-related decisions.
* Manage, collaborate and coordinate the work of an offshore development team.
* Worked on rebranding the existing web pages to clients according to the type of deployment.
* Worked on updating the existing clip board to have the new features as per the client requirements.
* Used many regular expressions in order to match the pattern with the existing one.
* Skilled in using collections in Python for manipulating and looping through different user defined objects.
* Work with team of developers on python applications for RISK management.
* Improved code reuse and performance by making effective use of various design patterns.
* Documented the design solutions and created stories for client requirements.

**Environment:** Python 2.7, 2.5, Django 1.7, 1.5, HTML5, CSS, XML, MySQL, JavaScript, Angular JS, Backbone JS, JQuery, CSS Bootstrap, Puppet MS SQL Server, Nginix server, Amazon s3, Jenkins, Mongo DB, postgreSQL Elastic search, T-SQL, Beautiful soup, Teradata

**Role: Python Developer**

**Client: Independent Health - Buffalo, NY**

**Mar' 12 to Apr' 14**

**Responsibilities:**

* Generated Billing System with AMQP.
* Developed AMQP mechanism using RabbitMQ to transfer data asynchronously between billing modules.
* Used AMQP to reduce the failure rate of billing automation process.
* Actively involved in software development life cycle (SDLC) of requirement gathering and also in suggesting system configuration specifications during client interaction.
* Developed Billing modules for getting detailed information of invoice information and processing that invoices to billing.
* Wrote more than two hundred python scripts which will generate e-bills in CSV/TXT/XLS format.
* Worked on MySQL database on simple queries and writing Stored Procedures for normalization.
* Tracked the status of e-bills generation and bills that are dropped in between the billing process.
* Tracked the status of e-bills at each module while billing process is in running state.
* Wrote Automation script for billing process to generate e-bills on a triggered interval.
* Wrote front end code to display information e-bills by calling e-bills status finding web services.
* Utilized PyUnit, the Python unit test framework, for all Python applications. Designed and configured database and back end applications and programs.
* Created a Git repository and added the project to GitHub.
* Designed and developed the UI of the website using HTML, AJAX, CSS and JavaScript.
* Developed entire front end and back end modules using Python on Django Web Framework.
* Used Django Database API's to access database objects.
* Wrote python scripts to parse XML documents and load the data in database.

**Environment:** Python, Django 1.3, MySQL, Linux, HTML, XHTML, CSS, AJAX, JavaScript, QTP, Apache Web Server, Shell Scripting.

**Role: Python Developer**

**Client: Credit Suisse - Raleigh, NC**

**Jan' 10 to Feb' 12**

**Responsibilities:**

* Used Django framework for application development.
* Booting up nodes using prebuilt images on Amazon EC2.
* Bootstrapping Amazon EC2 nodes with software you want running when your nodes boot up.
* Uploading, copying, downloading, and deleting files using Amazon S3.
* Assisted in reduction of cost and optimization of supplier selection for the CRM Applications.
* Used several python libraries like wxPython, numPY and matPlotLib.
* Design, develop, test, deploy and maintain the website.
* Designed and developed the UI of the website using HTML, XHTML, AJAX, CSS and JavaScript.
* Developed entire frontend and backend modules using Python on Django Web Framework.
* Wrote python scripts to parse XML documents and load the data in database.
* Generated property list for every application dynamically using python.
* Using Subversion version control tool to coordinate team-development.
* Responsible for debugging and troubleshooting the web application.
* Build all database mapping classes using Django models and Cassandra.
* Used Pandas API to put the data as time series and tabular format for east timestamp data manipulation and retrieval.
* Designed and developed data management system using MySQL.
* Built various graphs for business decision-making using Python matplotlib library.
* Created Python and Bash tools to increase efficiency of call center application system and operations; data conversion scripts, AMQP/RabbitMQ, REST, JSON, and CRUD scripts for API Integration.
* Created server monitoring daemon with Psutil, supported by Django app for analytics which I created. Also researched big data solutions with Cassandra database.
* Fetched twitter feeds for certain important keyword using python-twitter library.
* Experienced in Agile Methodologies and SCRUM Process.
* Worked in development of applications especially in UNIX environment and familiar with all of its commands.
* Resolved ongoing problems and accurately documented progress of a project.

**Environment:** Python 2.7, scipy, Pandas, Bugzilla, SVN, C++, Java, JQuery, MySQL, Linux, Eclipse, Shell Scripting, HTML5/CSS. Red hat Linux, Apache, RUBY, Cassandra, UNIX, REST, JSON.

**Role: Java Developer**

**Client: PHOENIX IT SOLUTIONS-INDIA**

**Mar' 08 to Nov' 09**

**Responsibilities:**

* Analyzed user requirements and designed UI, object model, application server logic and schema.
* Developed and designed JSP using struts tag libraries, HTML, JSP, AJAX, and Java script for Electronic health record (EHR)
* Coded Struts Action Classes and Model Classes.
* Integration of application with struts Validation framework to do business validations.
* Implemented JAXP for Processing and JAXB for Binding.
* Worked with Quality assurance team to validate the test patterns to meet the business requirements.
* Conducted Unit testing, Interface testing, System testing and user acceptance testing.
* Used SVN for version control
* Involved in writing SQL queries & PL SQL - stored procedures, functions, triggers, cursors, object types, sequences, indexes etc.
* Developed the application using Business Delegate design patterns to communication action mappings with EJB session beans & entity beans.
* Used JMS for asynchronous messaging.
* Involved in producing and consuming SOAP based web services.
* Involved in developing JUNIT test patterns and ran the TEST SUITE using EMMA tool.
* Deployed web components, presentation components and business components in Tomcat Web Server.

**Environment:** Java, J2EE, Struts, JSP, HTML, CSS, Oracle 9i, SQL, PL/SQL, XML, UNIX, JUNIT, VSS, WSDL, SOAP, EJB, entity beans, JMS, EMMA, and Tomcat 6.