**Arun Kumar Prabakaran**

**Python developer**

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horizontal line

**PROFESSIONAL SUMMARY**

**•**Extensive experience in Analysis, Design, Development, Testing, Customization, Bug fixes, Enhancement, Support and Implementation of various web, stand-alone, client-server enterprise applications using Python, Django in various domains.

•Experienced with full software development life-cycle (SDLC), architecting scalable platforms, object oriented programming (OOPs), database design and agile methodologies.

•Experience in designing and developing applications in Spark using Scala to compare the performance of Spark with Hive and SQL/Oracle.

• Experience in developing web-based applications using Python 2.7/2.6, Django 1.4/1.3.

**•** Good experience of software development in Python (libraries used: Beautiful Soup, numpy, scipy, matplotlib, python-twitter, Pandas data frame, network, urllib2, MySQL dB for database connectivity) and IDEs - sublime text, Spyder, Pycharm, emacs.

**•** Extensive experience in system analysis, design, development and implementation of web based and client/server application using HTML, Angular JS, Bootstrap, underscore JS, Node JS, CSS, JavaScript, AJAX, JSP, JDBC, XML, XSLT, Python, Django.

**•** Good experience in developing web applications implementing MVT/MVC architecture using Django, Flask, Webapp2 and spring web application frameworks.

**•** Experienced in MVC frameworks like Django, Angular JS, Java Script, JQuery and Node.js.

**•** Experienced in web applications development using Django/Python, Flask/Python.AndNode.js, Angular.js, DOJO, and JQuery while using HTML/CSS/JS for server-side rendered applications.

**•** Worked closely with designer, tightly integrating Flash into the CMS with the use of Flashvars stored in the Django models. Also created XML with Django to be used by the Flash.

**•** Experience in working on various python packages such as Numpy, SQLAlchemy, matplotlib, Beautiful soup, pickle, Pyside, Scipy, and PyTables.

**•** Good Experience in Linux Bash scripting and following PEP Guidelines in Python.

**•** Developed consumer based features and applications using Python, Django, HTML, Behavior Driven Development (BDD) and pair based programming.

**•** Using Django evolution and manual SQL modifications was able to modify Django models while retaining all data, while site was in production mode.

**•** Experienced in monitoring, developing and transforming data using SQL Server Integration Service (SSIS) and SQL Server Analysis Service (SSAS).

**•** Experienced with databases using ORMs/DOMs for integrating with MySQL, Postgres, Neo4J, MongoDB, and Cassandra SQLite. Also, experienced with writing custom queries through database connectors.

**•** Expertise in establishing database connections for Java and Python by configuring packages like JDBC, MySQL-Python.

**•** Successfully migrated the Django database from SQLite to MySQL to PostgreSQL with complete data integrity.

**•** Architecture, size (Capacity planning), Data modeling, implementation and support Cassandra Clusters including install, configure and upgrade DSE v3/4 (Cassandra v 1/2.x) and OpsCenter v 4.x/5.x on Bare metal and Cloud including AWS (Amazon Web Services).

**•** Configure backup, alerts, repairs and monitoring of Cassandra clusters, in conjunction with Nagios/Opscenter and custom scripts.

**•** Extensive experience in designing MongoDB multi-sharded cluster and monitoring with MMS.

**•** Experience with creating script for data modeling and data import and export. Extensive experience in deploying, managing and developing MongoDB clusters.

**•** Good Knowledge of web services using SOAP and REST protocols.

**•** Used Node.js as a proxy to interact with Rest services and also interacting with Database.

**•** Excellent Experience and knowledge in using XML, SOAP, web Service for inter operable software applications.

**•** Good knowledge of version control software – CVS, GitHub

**•** Efficient in demonstrating all phases of software development life cycle (requirements, design, architecture, development, testing).

**•** Experience in working with deployment tools like Microsoft Azure, Heroku and Jenkins.

**•** Deployed production site using Apache 2.0 with mod\_python.

**•** Experienced in Agile Methodologies, Scrum stories and sprints experience in a Python based environment, along with data analytics, data wrangling and Excel data extracts.

**•** Hands on experience with bug tracking tools JIRA and Bugzilla.

**•** Skilled in writing and reviewing requirements, architecture documents, test plans, design, documents, quality analysis and audits.

**•** Skilled in debugging/troubleshooting issues in complex applications.

**•** Excellent experience with Python development under Linux OS (Debian, Ubuntu, SUSELinux, RedHatLinux, Fedora).

**•** Experience in Database Administration, development, design, maintenance and production support of relational databases, business applications, new server setup, MySQL Server installation, upgrade, migration.

**Technical Skills:**

**•** Primary Languages: Python, Java, Php, C, C#

• Python Libraries: Beautiful Soup, Numpy, scipy, matplotlib, python-twitter, Pandas data frame, urllib2

**•** Frameworks: Bootstrap, Django, Node.JS, Flask, PyJamas, Pyramid, Hibernate, Spark.

**•** Database: Sqlite3, MSSQL, MySQL, Mongo DB, Oracle 11g

**•** IDE’s: Pycharm, Eclipse, Net Beans, MS Visual Studio, PyDev, RIDE

**•** Servers: Apache Tomcat, Web Sphere, JBoss, WebLogic, XAMP

**•** Deployment tools**:** MS Azure, Heroku, Amazon Web Services (EC2, S3, EBS, ELB, SES)

**•** Web Technologies: HTML, CSS, DHTML, XML, Java Script

**•** Operating systems: Windows, Mac, Fedora Linux, Red hat Linux

# • SDLC Methods: SCRUM, Agile

# • Testing Frameworks: JUnit, TestNG, ROBOT, JXL, JTest

# • Bug Tracking Tools: Axosoft, JIRA, Bugzilla, Rational Clear-quest

# • Version Controls: VSS, SVN, Github, Git

**EXPERIENCE**

**Thermofisher - Texas- Python Developer**  March 2017 - PRESENT

**Responsibilities:**

* Worked on requirement gathering and High-level design.
* Used **HTML/CSS, XML** and **JavaScript** for UI development.
* Converted Visual Basic Application to **Python, MySQL**.
* Used **Python** scripts to update content in the database and manipulate files.
* Created Reports using **JASPER**.
* Modified queries, functions, cursors, triggers and stored procedures for **MySQL** database to improve performance, while processing data.
* Developed build and deployment scripts using **ANT**&**MAVEN** as build tools in **Jenkins** to move from one environment to other environments.
* Optimizing of existing algorithms in Hadoop using **SPARK** Context, **Spark-SQL**, Data Frames and Pair RDD’s.
* Prepared the Test data (Input files) for interpreting the Positive/Negative/regression results based on the design requirements.
* Developed automated test scripts from manual test cases for Regression testing based on the requirement documents using **Quick Test Professional**.
* Used Collections in Python for manipulating and looping through different user defined objects.
* Responsible for Parsing **XML** data using **XML** parser and Testing, fixing of the bugs and coding modifications.
* Created data base tables, functions, stored procedures and wrote prepared statements using **PL/SQL**.
* Applied EMV card algorithms to system via python programs.
* Developed Scala scripts, UDFs using both Data frames/SQL and RDD/MapReduce in Spark 1.6 for Data Aggregation, queries and writing data back into OLTP system through Scoop.
* Responsible for getting the teams up and running with game record features.
* Performed research regarding Python Programming and its uses and efficiency.
* Utilized Python in the handling of all hits on **Django, Redis**, and other applications.
* Used **Thales** theorem for applying encryption and decryption of ISO standard message in Python programming.
* Used **Redis** as messaging broker to execute asynchronous tasks.
* Followed **Agile** Methodology and **SCRUM** Process.
* Extensive code reviewing using **GitHub** pull requests, improved code quality, and conducted meetings among peer.
* Collaborated with Product Management and User Experience experts regarding product definition, schedule, scope and project-related decisions.
* Managed, collaborated and coordinated the work of an offshore development team.

**Environment:** Python, Django, Visual Basic, Java Script, Hive, XML, JASPER, QTP, Spark, MySQL, PL/SQL, Oracle 9i, Bugzilla

**USAA, San Antonio *-* Senior Python Developer**  March 2015 – April 2017

**Responsibilities:**

* Worked on development of **internal testing tool framework** written in **Python**.
* Developed **GUI**using Python and Django for dynamically displaying**block documentation** and other features of python code using a web browser.
* Wrote scripts inPython for extracting data from **HTML** file.
* Developed views and templates with Python and Django's view controller and templating language to create a user-friendly website interface.
* Used JavaScript and JSON to update a portion of a webpage
* Performed troubleshooting, fixed and deployed many bug fixes for applications that were a main source of data for both customers and internal customer service team.
* Handled potential points of failure (database, communication points and file system errors) through error handling and communication of failure.
* Worked on POC’s with **Apache Spark** using **Scala** to implement spark in project.
* Responsible for debugging the project monitored on JIRA (Agile)
* Wrote Python scripts to **parse JSON documents** and load the data in database.
* Worked on Restful API's to access the third-party data for the internal analysis and statistical representation of data.
* Used PythonandDjango to interface with the **jQuery UI** and manage the storage and deletion of content.
* Build SQL queries for performing various CRUD operations like create, update, read and delete.
* Developed entire frontend and backend modules using **Python** on **Django** including **Tastypie** Web Framework using **Git**.
* Worked on front end frame works like **CSS Bootstrap** for development of Web applications.
* Created database using **MySQL**, wrote several queries to extract data from database.
* Worked in NoSQL database on simple queries and writing Stored Procedures for normalization and renormalization.
* Setup automated cron jobs to upload data into database, generate graphs, bar charts, upload these charts to wiki and backup the database.
* Analyzed the SQL scripts and designed the solution to implement using Pyspark
* Developed Merge jobs in Python to extract and load data into MySQL database.
* Successfully migrated the Django database from **SQLite**to**MySQL**to**PostgreSQL** with **complete data integrity**.
* Designed front end using **UI, HTML, Bootstrap****, Node JS, underscore JS, Angular JS, CSS,**and**JavaScript.**
* Followed **AGILE**development methodology to develop the application.
* Involved in Data base design, normalizations and de-normalization techniques.
* Involved in User Acceptance Testing and prepared UAT Test Scripts.
* Effectively communicated with the external vendors to resolve queries.
* Used and customized apache server to for checking our developed project.
* Used **Test driven approach (TDD)** for developing services required for the application.
* Implemented **Integration test cases.**
* Used **Git**to resolve and coding the work on python and**portlet.**

**Environment:** Python 2.7, Django 1.4, HTML5, CSS, XML, MySQL, JavaScript, Angular JS, jQuery, CSAS Bootstrap, JavaScript, APACHE Spark, Scala, Eclipse, Git, GitHub, AWS, Linux, Shell Scripting.

**UPS, Atlanta - Application/Software Development** Jan 2013 to March 2014

**Responsibilities:**

* Involved in Requirement study, Analysis and Design.
* Designed and developed **JavaScript,** **GUI** for user interface with various Server Controls (textbox, labels, data grid, data list, validations controls).
* Developed Custom User Controls to reduce the Complexity in User Interface Coding and provide better look and feel.
* Used **Java Script** for validating client-side data entry screens.
* Used **CSS** for maintaining appearance of Web Pages.
* Developed a desktop-based application in **Java** to keep record of customer, production, sales and marketing data. **MS SQL** Server used as database to store records.
* Designed and developed logical and physical database models.
* Analyzed existing **Java**-based application to identify weakness and opportunities for improvements, to outline system modification requirements, and to develop recommendations towards the development of new codes and reuse of existing codes.
* Responsible for providing support and analysis to the existing **MS SQL** server. Created Database objects like Stored Procedures, Triggers, Views, and Rules etc. Created tables and provide constraints and user defined rules in the database.

Wrote code using **SQL** Programming to perform database tasks such as inserts, updates, joins, and deletes to keep updated the existing **ERP** system in timely manner.

* Provided functional recommendations, training, and advanced documentation and data analysis support to project implementation teams throughout **SDLC** process such as planning, development and integration.

**Environment**: JavaScript, HTML, CSS, SQL Server 2012, SQL/T-SQL, ERP, Microsoft Visual Studio 2005.

**S&P Global, India- Application Developer**  June 2011 to June 2012

**Responsibilities:**

* Developed the web interface using **MVC** design pattern with **Struts** framework
* Designed and implemented most of the Java related portions of the application including EJBs for encapsulating business logic.
* Developed server-side utilities using **J2EE** technologies **Servlets**, **JSP**, **JDBC** using JDeveloper.
* Developed the **JSP**’s using the struts framework tag libraries.
* Developed the workflow concept using the struts framework to avoid the back-button problems.
* Responsible to analyze existing **C ++** project to prepare business logic documents.
* Was responsible to communicate with End client to support the application and analyze the issue and fixed the issue.
* Maintained the struts config files, tiles definition files and **web.xml**.
* Session Beans are designed in such a way to serve the following: Inserting, updating, and deleting data from the database
* Developed and executed the business validation logic in form beans.
* The framework involves struts framework, which internally uses the **J2EE** design patterns.
* Developed the servlets, beans for the application
* Preparation of Test Plans.
* Involved in the application development and unit testing.
* Responsible for design and architecture of the project by using **MVC** Struts frame work.

**Environment:** Toad, Apache Tomcat Server, Struts, web.xml, J2EE, JSP, JDBC, JDeveloper, HTML, CSS, JavaScript, MS Project, MS Excel, MS PowerPoint.