**PYTHON DEVELOPER**

**SHRUTHI MOHAN**

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**Professional Summary:**

* 8+ years of experience in Web/Application Development with deep understanding of the technologies which involves analysis, testing, design, development, implementation and maintenance of various wed based application using Python and Django.
* Experience in developing consumer-based custom features and application development using Python, Django, HTML, CSS, JavaScript.
* Experienced in working with various IDE’s like Spyder, Jupiter Notebook, PyCharm, Visual Studio code.
* Actively involved in every stage of Software Development Life Cycle and experienced in coding, testing.
* Installed, setup, and configured Cisco switches for TCP/IP intra-network and wireless access point across the network for the local area network and Wi-Fi.
* Good knowledge in Hadoop and its components like HDFS, Map Reduce, Apache Pig, Hive, Sqoop, Flume, React JS, Oozie and HBase.
* Experiences in developing Web Services with Python programming language.
* Worked on Design pattern like MVC and frameworks such as Django.
* Hands-on experience with Python libraries such as NumPy, SciPy, PyTable, Mat PlotLib.
* Experts in using Django Framework for developing web application.
* Good knowledge on Object Oriented Programing (OOP) using Python and C++.
* Established connection for database in Python using My-SQL Python.
* Developed entire frontend and backend modules using Python on FLASK and Django Framework.
* Advised and trained both financial and marketing analysts on ways to optimize their queries for a MPP database
* Used AWS Lambda Functions to trigger the code and managed custom performance and security along.
* Ensure data integrity and data security on AWS technology by implementing AWS best practices.
* Integrating AWS infrastructure with Cloud Computing Product.
* Experience with AWS API Gateway and Rest APIs.
* Experienced in writing Subqueries, Stored Procedure, Triggers, Cursor and Functions on MySQL and PostgreSQL database.
* Experience with version control like GIT and CVS.
* Experienced in writing test plans, test case, test specifications and test coverage.
* Experienced in installing, configuring, testing, modifying and deploying applications.
* Good experience in error and exceptional handling.
* Basic knowledge in Artificial Intelligence, NLP and Machine Language.
* Basic knowledge in building and understanding Natural Language Processing (NLP) Programs.
* Wrote python code within the Hadoop framework to solve Natural Language Processing (NLP) problems.
* Basic knowledge on Database Definition Language, Database Design, Data Warehouse Design.
* Basic knowledge on Kinesis, Athena, SNS.
* Experience in designing the automation framework using Shell scripting.
* Familiar in agile and waterfall methodologies in a Python based environment.
* Followed Agile Methodologies which involved daily stand-up meetings.
* Knowledge in Continuous Integration/ Continuous Delivery (CI/CD) system such as Jenkins.
* Experience in project deployment using web services like Amazon Web Services (AWS) EC2, AWS S3, Lambda, RDS (MySQL).
* Basic knowledge on REST, jQuery, Bootstrap, Pyspark.
* Basic knowledge on Machine Learning, Cloud Formation, Cloud 9.
* Basic knowledge on Node.JS, No SQL Database.
* Basic knowledge in Python AsyncIO REST API Framework.
* Used Python’s AsyncIO for micro-service-oriented environments like CM Webservices, other payment services and storage components.
* Familiar in designing automated framework using Shell Script.
* Good idea about testing tools like Bugzilla and JIRA.
* Extended Testing framework by adding some helper classes and methods.
* Experienced in working in different operating system such as Windows, LINUX and MAC and development experience on Linux based operating systems such as Ubuntu and CentOS.
* Developed the required XML Schema documents and implemented the framework for parsing XML documents.

**Technical Skills:**

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| --- | --- |
| **Operating System** | Windows, Linux, Mac |
| **Programming Language** | Python 2.7, Python 3, C++, HTML, CSS, Java Script, R |
| **Databases** | SQL, MySQL, PostgreSQL |
| **Frameworks** | Django, MVC |
| **Tools and IDE** | Spyder, Jupiter Notebook, PyCharm, |
| **Python Libraries** | NumPy, SciPy, PyTable, Mat PlotLib. |
| **Version Control** | Git, CVS, JIRA |
| **Cloud** | AWS EC2, Lambda Functions, Dynamo DB |

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| **Networking** | TCP/IP, Wireless, SMTP Server, LAN/WAN |

**Educational Details:**

Bachelor's in Electronic and Communication Engineering,

Anna University, 2010.

**Professional Experience:**

**LPL, San Diego, CA Nov 2017 – Till date.**

**Python Developer**

**Description:** Responsible for the design, development and support of the text-based content processing and integrating multiple data sources into one system containing multi terabytes of data that support the customer-facing highly-available web applications for searching in machine applications that utilize reusable, testable, and efficient code. Provided support to integration efforts between the company’s content provider and the technology environments.

**Responsibilities:**

* Part of team implementing the **REST API’s** in Python using micro-framework such as **Flask** with SQL Alchemy in the backend for management of data center resources on which Open Stack would be deployed.
* Used Python libraries such as **NumPy** and **SQL Alchemy**.
* Worked on Python Open Stack APIs and used NumPy for Numerical analysis.
* Used jQuery to transmit JSON data objects between frontend and controllers.
* Implemented user interface standards for the development and maintenance of the website using **HTML, CSS, JavaScript** and **jQuery**.
* Developed Wrapper in Python for instantiating multi-threaded application.
* Worked on frontend frameworks using **CSS, Angular JS** and **Bootstrap** for responsive webpages.
* Developed and tested many features for dashboard, which was created using CSS and JavaScript
* Used React for building a web app for the project.
* Developed views and templates using **Python** and **Django’s view controller**.
* Developed various algorithms for generating several data patterns
* Used **JIRA** for bug tracking and issue tracking.
* Performing Web automation in Seleniumusing JUnit framework and performing Mobile Web Manual testing.
* Responsible for troubleshooting LAN/WAN networks for issues, involving packet analysis using tools such as Wireshark.
* Used Spark API over Cloudera Hadoop YARN to perform analytics on data in Hive.
* Involved in designing and deploying multitude applications utilizing most of the AWS stack (Including EC2, Route53, S3, RDS, IAM) focusing on high-availability, fault tolerance, and auto-scaling in AWS CloudFormation
* Configured AWS IAM and Security Group in Public and Private Subnets in VPC.
* Created AWS Route53 to route traffic between different regions.
* Developed Test Cases, Test Scripts and Test Scenarios.
* Developed Test Cases Using Quality Centre based on requirements gathered from Functional Specifications and Design documents.
* Angular.js is used to build efficient backend for client web application
* Used **Angular JS** in the view layer for some of the view components.
* Developed user interface by using the React JS and Flux for SPA development
* Helped developer in installing Oracle Client, troubleshoot and establish the connection to Oracle database through JDBC.
* Oracle Database capacity planning, Creating & Managing Database Structures, space management, storage allocation and different type of storage structure (SAN/NAS)
* Involved in supporting cloud instances running Linux and Windows on AWS, experience with Elastic IP, Security Groups and Virtual Private Cloud in AWS.
* Added several options to the application to choose algorithm for data and address generation.
* Worked on Loading and transformed large sets of structured, semi structured and unstructured data using Hadoop/Bigdata concepts
* Responsible for troubleshooting LAN/WAN networks for issues, involving packet analysis using tools such as Wireshark.
* Developed and designed automation framework using Python and Shell Script.
* Used Django Database API’s to access database objects.
* Developed AWS CodeBuild/CodePieline/Lambda for CI/CD.
* Used Bootstrap Script for launching large number of instances in AWS.
* Risk analysis for potential points of failure (database, communication points and file system errors).
* Used Agile Methodology and Scrum Process.
* Maintained versions control using GIT.

**Environment:** Python, Django, HTML, CSS, JavaScript, jQuery, SQL, Git.

**Optum, Minneapolis, MN May 2015 – Oct 2017**

**Python Developer**

**Description:** Optum is the fast-growing part of UnitedHealth Group. It is a leading information and technology-enabled health services business. In this project we extract the data from a different line of business and sent back through a different line in Optum.

**Responsibilities:**

* Analyzing user requirements and defining functional specifications.
* Co-ordinate with the architects to make sure that all the Demands and Change Requests have been covered for that release.
* Re-designed existing data model to eliminate the need for creating individual files for every subject area.
* Wrote Python script to parse XML documents and load the data in database.
* Worked in Developing a REST API’s service using Python framework as well as using SOAP and REST API for information extraction
* Participated in development of well responsive single page application using HTML5, CSS standards, with front end UI team.
* Generated Python/Django forms.
* Developing PL/SQL Procedures, Functions, Cursors, and Packages. Views and Materialized Views with fast and incremental Refresh Rates.
* Used Pandas library for statistics analysis.
* Wrote Python code embedded with JSON and XML to produce HTTP GET request, parsing HTML data from websites.
* Participated in all the stages of software development lifecycle including design, development, implementation, and testing.
* Used Unit Test Python library for testing many programs.
* Build application and database servers using AWS EC2 and create AMIs also using RDS for Oracle DB.
* Involved in migration and implementation of multiple applications from on premise to cloud using  
  AWS services like SMS, DMS, Cloud berry, S3, Route 53, Glacier, EC2, RDS, storage gateway, fast glacier.
* All these four micro services are deployed in Mesos cluster in **AWS** using Jenkins, Marathon, and Chronos.
* Experience in using various version control systems like Git, CVS, GitHub, Heroku and Amazon EC2.
* Automated the test cases using Selenium IDE add on plug-in.
* Responsible for installing, supporting the oracle stand alone, RAC(2node) and RAC(2node) with Data Guard databases of the version 11g, 10g and 9i on Sun Solaris 10, and Windows 2008.
* Installed Oracle 12c database with a single instance on a Linux in a test environment.
* Involved in tokenizing the sensitive data before archiving in **AWSS3** using **REST** based Enterprise Tokenization service and encrypting the data before sending it over wire to external systems.
* Refactored existing batch jobs and migrated existing legacy extracts from Informatica to Python based micro services and deployed in **AWS** with minimal downtime.
* Developing test automation framework using python and See Test APIs.
* Involved in Code reviews and Test Case reviews.
* Demonstrated experience in managing Oracle 10g/11g RAC environments using the Grid Control tools.
* Used Quality Center for assigning defects to the developer and took the responsibility to get them to a closed status after working with developers and identifying the actual problem.
* Prepared the test data for different scenarios like Medicaid, Medicare and for functionality of the application.
* Wrote Python code with JSON and XML to produce HTTP GET request and to analyzing HTML data for websites.
* Developed Python code using JSON and XML to produce HTTP GET request, parsing HTML data from website.
* Built an interface between Django and Salesforce with the REST API.
* Worked on converting Hive/SQL queries into Spark transformations using Spark RDDs, Python, and OOP with Python. Worked on developing and executing shell scripts to automate the jobs.
* Implemented procedures like text analytics and processing using the in-memory computing capabilities like Apache Spark written in Scala.
* Extensively used Global Temporary Tables to load the required data set to increase the performance.
* Extensively used materialized views, automation transactions, object types, table functions and pipelined functions to implement business logic effectively.
* Used web builder to deploy and test the code base for every release to database.
* Responsible for Unit, System and UAT testing the data and provided the test evidence reports.

**Environment:** Python, JSON, PL/SQL, Git.

**Baxter Healthcare, Roundlake, IL Jul 2013 – Apr 2015**

**Python Developer**

**Description:** Baxter Healthcare develops, manufactures, and markets healthcare equipment and instruments and provides services to clients. Open Data Portals are also a part of Baxter Healthcare open data initiative. There is a portal for each dataset. The portal displays the data for the Key indicators of the data set and provides the data for specific countries, regions and global. The users can make selections from various dropdowns. The portals also provide information on the latest policies, plans etc.

**Responsibilities:**

* Design, develop, test, deploy and maintenance of the website.
* Designed and developed the UI of the website using HTML, AJAX, CSS and JavaScript.
* Developed entire frontend and backend modules using Python.
* Designed and developed data management system using MySQL.
* Rewrite existing Java modules to deliver certain format of data.
* Wrote python scripts to parse XML documents and loaded the data in database.
* Generated property list for every application dynamically using python.
* Handled all the client-side validation using JavaScript.
* Integrated user-facing elements developed by front-end developers with server-side logic.
* Developed algorithms for detecting attacks against critical infrastructures and cloud-based infrastructures.
* Used Matplot lib and Python to create visual representations of different datasets to aid in network traffic characterization and cyber-attack detection
* Maintained and evolved in class back-end infrastructure.
* Performed unit testing.
* Developing Requirement **Traceability Tool** using python.
* Developed monitoring application which captures the error related data and store it in database.
* Experience on full test search platform using NoSQL elastic search engine, allowing for much faster, more scalable and more intuitive user searches for our database of spas worldwide.
* Prepare risk mitigation plans if in case any delays are foreseen.
* Involved in scrubbing project, which updates the existing data with hashed values.
* Reverse engineer and re-implement legacy back-end software into Python with minimal downtime.
* Maintained and monitored frameworks like Django.
* Performed scoring and financial forecasting for collection priorities using R and SAS Machine Learning algorithms.
* Creating unit test/regression test framework for existing code
* Created an Test Automation Framework with Selenium for test automation process
* Using Subversion version control tool to coordinate team-development.
* Responsible for debugging and troubleshooting of web application.

**Environment:** Python, Django web framework, MySQL, Linux, HTML, XML, CSS, AJAX, MPP, JavaScript, Networking.

**Whirlpool Corporation, Stockton, CA Nov 2011 – Jun 2013**

**Python Developer**

**Description:** Worked on development of customer support and complains registration system for Whirlpool. This is a Post sales and Customer feedback and complains management system.

**Responsibilities:**

* Created a portable fully automated test tool, allowing 24/7 integration support for two development sites around the world and decreasing code turnaround time for 4 hours to 1 hour.
* Automated the daily and weekly build process to allow us to build daily builds twice a day for faster turnaround time for submitted code changes.
* Automated the code release process, bringing the total time of code releases from 8 hours to 1 hour.
* Developed a fully automated continuous integration system using Git, Jenkins, MySQL and custom tools developed in Python.
* Implemented a review process in integrating automation using Review Board and Gerrit that eliminates the need for 5 hours per week daily approval meetings.
* Created modern, REST APIs from existing information assets.
* Built Web pages that are more user-interactive using JavaScript.
* Resolved QA bugs for frontend and backend.
* Performed QA testing on the application.
* Designed the UI using HTML, jQuery and CSS.
* Developed modules using HTML and Angular Js.
* Developed a covert mail script that extracts code defects data per component for a daily report to drive reducing defects in the codebase.
* Manage a technician that oversees automation and carries out daily tasks.
* Designed and maintained databases using Python and developed Python based API using Flask

**Environment:** Python, jQuery, Git, Linux.

**SPI Technologies India Pvt. Ltd, Chennai, India Apr 2009 to Oct 2011**

**Python Developer**

**Responsibilities:**

* Designed and developed the user interface of the project with HTML, CSS and JavaScript.
* Entire Front-end and Back-end modules of the project are developed using Python with Django framework.
* Design, develop, test, deploy and maintain the website.
* Designed and developed data management system using MySQL.
* Generated property list for every application dynamically using Python.
* Designed and developed the data management systems using MySQL databases.
* Utilized the existing Python and Django modules and rewritten to deliver data in required formats.
* Creating unit test/regression test framework for working/new code.
* Client-side validations and manipulations are done using JavaScript and jQuery.
* Responsible for Debugging and troubleshooting the application.
* Utilized subversion control tool to coordinate team work.
* Handling the day-to-day issues and fine-tuning the applications for enhanced performance.
* Developed shopping cart for Library and integrated web services to access the payment.
* Build SQL queries implementing functions, packages, views, triggers, and tables.
* Using Subversion version control tool to coordinate team-development.

**Environment:** Python, Django. HTML, CSS, JavaScript, MySQL.