**Swathi Tupakula**

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**Python Developer**

Technical professional with an extensive portfolio of projects, knowledge of numerous applications and programming languages and around 5 years of background as a Python Developer. A motivated problem solver with an aptitude for innovation and solutions development. Will benefit top organization by combining technical and designing skills to drive productivity and savings.

**SUMMARY**

Profound experience as a developer with deep understanding of technology trends with expertise in core of complex technologies. Solid experience in Analysis, Design and Development, Testing, Implementation, production support and maintenance of various Web Applications using Python, Django.

* Experience of using Python modules like NumPy, Matplotlib, Pickle, Pandas, SciPy, wxPython, PyTables, PyQt, etc., for generating complex graphical data, creation of histograms, etc.
* Skilled in Object-Oriented Design and Programming using Python and C++.
* Experienced in using Python, Django, PHP, C++, CSS, HTML, XHTML, JavaScript, JQuery, XML, AJAX and JSON for developing web applications.
* Developed entire frontend and backend modules using Python on Django Web Framework with GIT.
* Experienced in implementing Model View Control (MVC) architecture using server-side applications like Django and Flask for developing web applications.
* Used Amazon Web Services (AWS) for improved efficiency of storage and fast access.
* Experienced in developing Web Services with Python programming language. Developed web applications and Restful web services and APIs using Python Flask, Django and PHP.
* Profiled python code for optimization and memory management.
* Proficient in developing complex SQL Queries, Stored Procedures, Triggers, Cursors, Functions, and Packages along with performing DDL and DML operations on the database.
* Wrote and executed various MYSQL database queries from python using Python-MySQL connector and MySQL dB package.
* Setting up databases in AWS using RDS and configuring instance backups to S3 bucket.
* Work closely with development teams to integrate their projects into the production AWS environment and ensure their ongoing support.
* Written transformations and actions on data frames, used Spark SQL on data frames to access hive tables into spark for faster processing of data.
* Proficient in writing unit testing code using Unit Test/PyTest and integrating the test code with the build process.
* Associated with working cloud computing platforms like Open stack.
* Used python scripts to parse XML and JSON reports and load the information in database.
* Involved in development of Python based Web Services using REST for sending and getting data from the external interface in the JSON format and perform analysis using Django.
* Experienced with version control systems like Git, GitHub, CVS, and SVN in order to keep the versions and configurations of the code organized.
* Experienced the full software life cycle in SDLC, Agile and Scrum methodologies.
* Strong conceptual, analytical, and design skills with leadership qualities. Able to work with a team or individually with excellent communication skills, and ability to meet deadlines in a fast-paced work environment.

**EDUCATION:**

**Master of Science** - Computer Science, 2016 | Chicago State University | 3.41 GPA

**Technical Proficiencies**

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| --- | --- | --- |
| * Python * PL/SQL, T-SQL * C, C++, Core Java, JavaScript * AWS | * IDE * Django, Numpy, Scipy * MS SQL Server, MySQL | * JSON, XML, HTML5, CSS * UNIX Shell Script * Power BI |

**Professional Experience**

**Python Developer:** **Client: Questar Assessment, Inc**., **Minneapolis** **– Jan 2017- Present**

**Project:** Questar Assessments Inc. is an educational assessment provider for K-12 students. There are multiple State projects within the organization related to processing of student data, loading datamart from transactional systems, creating interactive reports for districts and schools and generating data files. I’m a part of several different projects like Tennessee, Utah, and Mississippi, Georgia etc.

**Responsibilities:**

* Worked with business users, business analysts, program managers, project managers, system analysts, quality assurance analysts for reviewing business requirements.
* Created technical specification documents based on business requirements and collaborated with QA team and other developers to discuss design and architecture.
* Developed tools using **Python**, **Shell scripting**, **XML** to automate some of the menial tasks.
* Used Python to write data into **JSON** files for testing Student Item level information. Created scripts for data modelling and data import and export.
* Involved in building database Model, **APIs** and **Views** utilizing **Python**, in order to build an interactive web based solution.
* Building **Power shell scripts** to execute **Bulk copy protocol (BCP)** commands to pull bulk data into database (we process around 150 Million records).
* Proficient in writing SQL Queries, Stored procedures, functions, packages, tables, views, triggers using relational databases like **Oracle**, **MySQL**, **Apache** **Spark**, Cassandra, and **MongoDB**.
* Developed **SSIS Packages** to extract data from source systems such as Transactional system for

online assessments and legacy system for paper pencil assessments, transform data based on business rules and load the data into reporting datamart tables such as **dimensions** ,**facts** and

**Aggregated fact** tables.

* Creating **spark dataframes** according to SLA for processing the data and storing into staging area.
* Used Python 3.X (**numpy, spicy**) and **Spark** **2.0** (PySpark) to develop variety of models and algorithms for analytic purposes.
* Designed and managed API system deployment using fast http server and **Amazon AWS** architecture.
* Generated State Data files which have around 2000 columns and sized at 6-8 GB through building logical data sets referring to business requirements using **Python**.
* Used object-relational mapper (**ORM**) to automate the transfer of data stored in relational databases tables into objects.
* Loading assessments scoring which is done through QTI (Question & Test Interoperability) standard.
* Managed, developed, and designed a dashboard control panel, Graphical representations, Pie Charts etc., for Program to see the Student Performance in individual Reports using **Django**, **HTML**, **CSS**, **JavaScript**, and **JQuery** calls.
* Used **Pandas** API to put the data as time series and tabular format for Central timestamp data manipulation and retrieval during various loads in the datamart.
* Carried out various **mathematical operations** for calculation purpose using **Python libraries** which loading the Fact tables which involves aggregations using dimensions.
* Used **PySpark** Data frame for creation of table and performing analytics over it.
* Used Python libraries and **SQL queries**/sub queries to create several datasets which produced statistics, tables, figures, charts and graphs.
* Performed data extraction and manipulation over large relational datasets using **SQL**, **Python**, and other analytical tools.
* Worked closely with QA team to discuss design and any defects related to Datamart.
* Followed the process of updating and maintaining **JIRA** support ticket, Project and its sub-tasks workflow process and communicating with ticket submitter. Maintained a track of all the loads in JIRA.
* Uploading detailed documents on process flows, ETL flows, explanation of scripts used for validating data files, datamart tables in confluence for knowledge sharing and team building.

**Environment:** *Python, Django, HTML, CSS, JavaScript, Shell Scripting, SQL Server 2016/2012, T-SQL, SSIS,* *Visual studio, Power BI, Power Shell, AWS,**Spark*.

**Python Developer: Client: Primerica, Atlanta, GA - Jan 2015 – Dec 2016**

**Project:** Primerica is a Main Street company for Main Street North America. Their mission is to help families earn more income and become properly protected, debt free and financially independent. In Primerica I am a part of a project called “Sprint To District”, a section in their mobile application.

**Responsibilities:**

* Participated in requirement gathering and worked closely with the architect in designing and modeling.
* Developed entire frontend and backend modules using **Python** on **Django Web Framework**.
* Developed tools using **Python**, **Shell scripting**, **XML**, **BIG DATA** to automate some of the menial tasks.
* Used **PyQt** for the functionality filtering of columns helping customers to effectively view their transactions and statements. Implemented navigation rules for the application and page.
* Performed testing using **Django's Test Module**.
* Used **Django configuration** to manage URLs and application parameters.
* Developed a fully automated continuous integration system using Git, Jenkins, MySQL and custom tools developed in Python and Bash.
* Creation of **Python scripts** for data access and analysis to aid in process and **system** **monitoring**, and **reporting**.
* Job scheduling, batch-job scheduling, process control, forking and cloning of jobs and checking the status of the jobs using **shell** **scripting**.
* Generated **Python Django Forms** to record data of online users.
* Created Data tables utilizing **PyQt** to display customer and policy information and add, delete, update customer records.
* Responsible for search engine optimization to improve the visibility of the website.
* Designed and developed the **UI** of the website using **HTML5**, **XHTML**, **AJAX**, **CSS3**, **BIG** **DATA** and **JavaScript**.
* Handled all the client side validation using **JavaScript**.
* Developed Views and Templates with **Django** **view controller** and template language to create a user-friendly website interface.
* Designed and developed integration methodologies between client web portals and existing software infrastructure using **SOAP API's** and vendor specific frameworks.
* Developed a mail script that extracts code defects data per component for a daily report to drive reducing defects in the code base.
* Worked extensively on developing a **shell-script** which automates the packaging of the project and deploys it from Jenkins to the production server when the project is pushed to the **GitLab**.
* Deployed the project into Jenkins using **GIT** **version control system**.
* Used Shell scripting for host concurrent programs and migration scripts for deployment.
* Wrote **Unix Shell Scripts**, undertook Code Optimization and Performance tuning of the application.

**Environment:** *Python, Shell Scripting, JavaScript, Django, PL/SQL, HTML5, CSS, GIT.*

**Python Developer: Client: Accenture, Hyderabad, India Aug 2013 – Nov 2014**

**Project:** Accenture is a leading global professional services company, providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. I’m a part of a project called “Electrolux” - an Electronic device company in which we retrieve the invoices which will be generated day-to-day.

**Responsibilities:**

* Interacted with the business users to understand the functionality and their requirements.
* Understanding the requirements and preparing the business requirement and functional specification document.
* Involved in the database design for better understanding the relations, associations and dependencies within the database.
* Rewrite existing Python/Django module to deliver certain format of data.
* Used Django Database APIs to access database objects.
* Wrote python scripts to parse XML documents and load the data in database.
* Worked on a development creating a call center / medical advice application for Kaiser Permanente.
* Completed Kaiser HIPAA privacy and security compliance training.
* Designed and developed the UI of the website using HTML, XHTML, AJAX, CSS and JavaScript.
* Developed views and templates with Python and Django's view controller and templating language to create a user-friendly website interface.
* Worked with MySQL databases, Apache Web server.
* Being an Agile project actively contributed to planning sessions and story creations related to ETL.

**Environment***: SQL SERVER 2010, Microsoft Excel, Python, Django, Shell script, MS Office.*