**Swati Sharma**

**9728857103**

[**system.psys@gmail.com**](mailto:system.hsys@gmail.com)

**Summary:**

* Engineering professional with 8 years of experience in Software development, Analysis, Design, Development, Management, and Implementation of various standalone and client-server enterprise Python/Django based web-applications. (Developed web-based applications using Python 2.7/2.6,Python 3 Django 1.4/1.3).
* Mastering/Leading in the development of applications/tools using Python for 6 years.
* Experience with Web Development, Web Services, Python and the Django/flask framework.
* Proficient in Front end development experience using HTML, XML, CSS, JQuery and JavaScript, AngularJS.
* Mastering Web Application Development using html, JavaScript.
* Expertise in Object-Oriented design and coding. Good knowledge of various Design Patterns and UML.
* Experience in developing web-based applications using Python 2.X, Django 1.X/Flask.
* Experienced in using flask components like needs, permission, Principal for providing user permissions at granular level.
* Proficient in SQL databases MS SQL, MySQL, Oracle and No-SQL databases like MongoDB, Pymongo.
* SQL and PL/SQL programming, developing complex code units, database triggers and using the latest features to optimize performance (Bulk Binds, Materialized views, Inline views, Global Temporary Tables).
* Experience in building frameworks and automating complex workflows using Python for Test Automation.
* Experienced in writing SQL Queries, Stored procedures, functions, packages, tables, views, triggers.
* Experience in working with Python ORM Libraries including Django ORM, SQL Alchemy.
* Good experience in working with Web services like Amazon EC2, AWS and Amazon s3.
* Hands-on experience in UNIX and LINUX Kernels.
* Hands on experience in SVN, Git, JIRA, and Bugzilla.
* Good knowledge of web services with protocols SOAP, REST.
* Good knowledge of server Apache Tomcat, Web logic.
* Experienced in various types of testing such as Unit testing, Integration testing, User acceptance testing, Functional testing.
* Experience in writing test plans, test cases, test specifications and test coverage.
* Good Experience in error and exceptional handling.
* Proven ability to implement Continuous Integration and Continuous Deployment processes.
* Having experienced in Agile Methodologies, Scrum stories and sprints experience in a Python based environment, along with data analytics, data wrangling and Excel data extracts.
* Performed numerous server migrations on both Linux and Windows servers. Migrations include moving all clients and their data, configuration settings, testing and verifying.
* Extensive knowledge on automated batch programs by UNIX shell Scripts (file validations, file downloads, workflow executions).
* Can handle, writing technical and functional documents defined by the business requirements.
* Outstanding communication, analysis, and out-of-the-box/creative problem solving.
* Experience in working with different operating systems Windows, UNIX, Linux, and OS X.
* Experienced in statistical analysis by using SAS and Python.
* Experienced in COBOL for creating interfaces for mainframes.
* Extensive experience in Text Analytics, developing different Statistical Machine Learning, Data Mining solutions to various business problems .
* Analyze Business problems from data and create predictive models Using Machine learning.
* Good knowledge of TLS,TCP/IP, UDP, HTTP, HTTPS, SSH and SSL protocols.
* Worked with several python packages like Numpy, Matplotlib, Scipy, PyQt, wxpython, PyTables.
* Good working experience in using version control systems Git and GitHub.
* Worked extensively with Unit testing/ Test Driven Development(TDD), and Load Testing.
* Hands on experience in implementing LDA, Naive Bayes and skilled in Random Forests, Decision Trees, Linear and Logistic Regression, SVM, Clustering, neural networks, Principle Component Analysis and good knowledge on Recommender Systems.
* Proficient in Statistical Modeling and Machine Learning techniques (Linear, Logistics, Decision Trees, Random Forest, SVM, K-Nearest Neighbors, Bayesian, XG Boost) in Forecasting/ Predictive Analytics, Segmentation methodologies, Regression based models, Hypothesis testing, Factor analysis/ PCA, Ensembles.
* Expertise in transforming business requirements into analytical models, designing algorithms, building models, developing data mining and reporting solutions that scales across massive volume of structured and unstructured data.
* Strong experience in Software Development Life Cycle (SDLC) including Requirements Analysis, Design Specification and Testing as per Cycle in both Waterfall and Agile methodologies.
* Experience and Technical proficiency in Designing, Data Modeling Online Applications, Solution Lead for Architecting Data Warehouse/Business Intelligence Applications.

**Work Experience**

**Python developer**

**Cox Auto – Atlanta, GA**

**July 2016 to Present**

**Responsibilities:**

* Design a new data processing system and architecture to perform multiple recurring, time sensitive, and mission critical funding processes, each involving multiple programs, calculation steps, and/or data sources.
* Replace all COBOL and SAS code with Python 3 code, potentially augmented with ODE owned reporting tools (e.g. Tableau).
* Make most data calculations reusable across multiple payment processes (e.g. as a Python package)
* Make the processes configurable so that simple changes (such as constants or multiplication factors that may change each budget biennium) can be changed at run time without requiring code changes and a formal software release.
* Identify, recommend, and assist with implementing a Python 3 distribution (CPython, Anaconda, etc.) appropriate for ODE's needs.
* Work with ODE personnel to review existing legacy COBOL and SAS code to document business rules, system process flow and identify process re-engineering opportunities.
* Replace legacy COBOL and SAS code by writing Python programs to implement the business logic within the context of the new reusable and configurable system architecture.
* Creating a front end for the Payment processing system using Ajax and other front end technologies.
* Assist and/or replace legacy COBOL code that generate dynamic financial reports on the ODE web site with modern technologies (e.g. Python, Tableau).
* Processing this data using Spark Streaming API with Scala.
* Mentor ODE programmers as they make the switch from COBOL/SAS to Python, assisting them as needed in rewriting legacy COBOL and SAS code and assisting with establishing Python 3 team development standards.
* Experience in the Hadoop ecosystem components like HDFS, Spark with Scala and python, Zookeeper, Yarn,MapReduce, Pig, Sqoop, HBase, Hive, Flume, Cassandra, MongoDB, Oozie, Kafka, Flume, and TEZ
* Created various Parser programs to extract data from Autosys, Tibco Business Objects, XML, Informatica, Java, and database views using Scala.
* Extensively worked on Spark using Scala on cluster for computational (analytics), installed it on top of Hadoop performed advanced analytical application by making use of Sparkwith Hive and SQL/Oracle.

**Environment:** Python3.x (Scikit- Learn/Scipy/Numpy/Pandas/Matplotlib/Seaborn),SAS, VISUAL STUDIO 2017,SQL server management studio, Spark (Pyspark, MLlib, Spark SQL), AJAX, Informatica 9.0, ODS, OLTP, Oracle 10g, , MS Excel, Miscrosoft IIS 6.0.

**Python developer**

**Glatfitter – York, PA**

**April 2013 to June 2016**

**Responsibilities:**

* Worked with various Python libraries such as Six, Click, Pandas and Matplotlib for analysis and manipulation of data.
* Designed Docker proof-of-concept using Hashicorp's Nomad and Consul.
* Used Consul for Service Discovery and to create Key-Value pair.
* Wrote Python scripts to parse JSON files and load the data into the Consul.
* Worked with SAS and Python for data analysis and visualization purpose to a better understand about the data.
* Migrated the SAS code to Python for the better use of python visualization and analytical models.
* Created own algorithms to predict the Tax payers behavior which will be helpful for future purpose.
* Involved in development using Python, bug fixing.
* Developed web-based applications using Python, Django, XML, CSS, HTML, DHTML.
* Developed entire frontend and backend modules using Python on Django Web Framework.
* Development of real-time multi-tasking systems using Python.
* Combination of these elements (future prediction & multi-dimensional segmentation) would enable the department to design better web platform and have a vision for the future Taxation.
* Used Python 3.X (numpy, spicy, pandas, scikit-learn, seaborn) and Spark 2.0 (PySpark, MLlib) to develop variety of models and algorithms for analytic purposes.
* Deployed GUI pages by using JSP, JSTL, HTML, DHTML, XHTML, CSS, JavaScript, and AJAX.
* Configured the project on WebSphere 6.1 application servers.
* Developed a Machine Learning test-bed with 24 different model learning and feature learning algorithms.
* Used SAX and DOM parsers to parse the raw XML documents.
* Used RAD as Development IDE for web applications.
* Develop and plan required analytic projects in response to business needs.
* In conjunction with data owners and department managers, contribute to the development of data models and protocols for mining production databases.
* Develop new analytical methods and/or tools as required.
* Contribute to data mining architectures, modeling standards, reporting, and data analysis methodologies.
* Conduct research and make recommendations on data mining products, services, protocols, and standards in support of procurement and development efforts.
* Work with application developers to extract data relevant for analysis.
* Provide and apply quality assurance best practices for data mining/analysis services.

**Environment:** Python3.x (Scikit- Learn/Scipy/Numpy/Pandas/Matplotlib/Seaborn),SAS  
Spark (Pyspark, MLlib, Spark SQL), Informatica 9.0, ODS, OLTP, Oracle 10g, Hive, OLAP, DB2, Metadata, MS Excel, Rational Rose.

**Python Developer**

**Sun Trust - Atlanta, GA**

**May 2010 to March 2013**

**Responsibilities:**

* Developed Python Django forms to record data and the Login module page for users.
* Designed email marketing campaigns and created interactive forms that saved data into database using Django Framework.
* Worked in Test driven development with Behave in Python.
* Creating Behave scripts using Gherkin syntax.
* Used collections in Python for manipulating and looping through different your defined objects.
* Wrote Python routines to log into the websites and fetch data for selected options.
* Performed efficient delivery of code based on principles of Test Driven Development (TDD) and continuous integration (CI) to keep in line with Agile Software Methodology principles.
* Implemented a login module for user, registration of the products, placing the order and tracking the order.
* Created PHP/MySQL back-end for data entry from Flash.
* Improving the performance while processing data by modifying functions, queries, cursors, triggers and stored procedures for MySQL database.
* Worked on Unit testing, Integration testing and Web application testing.
* Code review using GitHub, testing, fixing of the bugs and coding modifications.
* Performed research to explore and identify new technological platforms.
* Improved performance by using more modularized approach and using more in built methods.
* Collaborated with internal teams to convert end user feedback into meaningful and improved solutions.
* Performed data manipulation/storage for incoming test data using lxml /etree libraries.
* Enhanced existing automated solutions, such as the Inquiry Tool for automated Asset Department reporting and added new features and fixed bugs.

**Environment:** Python 2.7, Django 1.4, Behave, Puppet Rspec, Jenkins, Grafana/Graphite, MySQL, Linux, HTML, CSS, Bootstrap,CI, JQuery, PHP, JavaScript, Apache, Linux, Git, Perl, Cassandra, Azure Automation cloud services.

**Educational Details:**

**Electrical and Computer Engineering**

**Kurukshetra University**