**Sunil Kumar Singh**

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**Summary:**

* 6+ 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.
* Vigorous knowledge in progressing web applications and effectuating Model View Control architecture using Django web application framework.
* Excellent knowledge on Python Collections and Multi-Threading.
* Proficient in developing complex SQL queries, Stored Procedures, Functions, Packages along with performing DDL and DML operations on the database.
* Implemented responsive web pages using HTML5/CSS3, XML/JSON based REST web services.
* Experienced in developing web-based applications using Python, Django, C++, XML, CSS, and HTML.
* Experienced with object-oriented programming (OOPS) concepts using Python, C++ and Java.
* Excellent working knowledge in Unix and Linux shell environments using command line utilities
* Hands on experience working in WAMP (Windows, Apache, MySQL, and Python/PHP) and LAMP (Linux, Apache, MySQL, and Python/PHP) Architecture.
* Performing the Post pruning techniques in machine learning to reduce the complexity of the final classifier which results in improving the predictive analysis by reducing over fitting, using python libraries(**sklearn**).
* Good experience using various Python libraries to speed up development (libraries used: OS, Pickle, NumPy) MySQL dB for database connectivity.
* Worked on diverse applications using python integrated IDEs Eclipse, PyCharm, Visual Studio
* Good knowledge of web services with protocols SOAP, REST.
* Experienced in installing, configuring, modifying, testing and deploying applications with Apache.
* Experienced with Unit Testing, System Integration Testing (SIT) and User Acceptance Testing (UAT).
* Having experienced in Agile Methodologies, Scrum stories and Sprints experience in a Python based environment.
* Experienced with version control systems like Git, SVN to keep the versions and configurations of the code organized.
* Experience in writing test scripts, test cases, test specifications and test coverage.
* Good amount of experience in handling errors/exceptions and debugging issues in large scale applications.
* Hands-on experience in writing and reviewing requirements, architecture documents, test plans, design documents, quality analysis and audits.
* Used EM algorithm to perform data clustering in machine learning and for Hidden Markov Models used the Baum-Welch algorithm in NLP.
* Experts in using Django Framework for developing web application.
* Good knowledge on Object Oriented Programing (OOP) using Python and C++.
* 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.
* Experience in designing the automation framework using Shell scripting.

**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 |
| * 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 |

**Work Experience**

**BARCLAYS – Atlanta, GA**

**Python Developer March 2018 – Present**

**Responsibilities:**

* Involved Unit Testing and Integration testing identified performance issues and solved.
* Created interactive data charts on web application using High charts JavaScript library with data coming from Apache Cassandra.
* Integrated AWS-RDS Oracle and Aurora DBs to AWS-Hive EMR using DynamoDB.
* Created a Python, Django web-based application using Python scripting for data processing and MySQL for database, HTML, CSS, jQuery for data visualization.
* Wrote with object-oriented Python, Flask, SQL, Beautiful Soup, httplib2, Jinja2, HTML/CSS, Bootstrap, jQuery, Linux, Sublime Text, GIT.
* Wrote Python modules to view and connect the Apache Cassandra instance.
* Involved in developing web application to monitor key parameter indicators using Python, MySQL, Html5, CSS, Angular.JS, JavaScript, and bootstrap.
* Understanding of secure-cloud configuration, Cloud Trail, cloud-security technologies (VPC, Security Groups, etc.) and cloud-permission systems (IAM).
* Worked on frontend frameworks like CSS Bootstrap for development of Web application. Worked in MongoDB on simple queries and writing Stored Procedures for normalization and denormalization.
* Designed and implemented a dedicated MongoDB database server to drive the web apps and report on daily progress.
* Consumed external APIs and wrote RESTful API using Django REST Framework and Angular Js. Developed views and templates with python and Django view controller and templating language to create a user-friendly Website interface.
* Worked on AWS services (S3, EC2) and deployment services (Lambda) and RDS, DynamoDB (NoSQL), Beanstalk, CI/CD.
* Developed and designed automation script using Python and Bash.
* Built SQL queries for performing various CRUD operations like create, update, read and delete.

**UBS, Chicago, Illinois, United States Jun 2016 – March 2018**

**Software Engineer (Python)**

**Job Description:** Work on both critical enhancements to the existing front office and middle office tools to assist the business and ensure the components of the operational platform are highly efficient. It involved portfolio management, Data analysis, Decision support tools using Python, Perl, SQL and shell scripting.

**Responsibilities:**

* Involved in various phases of the project like analysis, design, development, and testing.
* Generated Python Django Forms to Record data of users.
* Comfortable working within the Django ORM, writing native SQL queries in PostgreSQL.
* Developed remote integration with third party platforms by using RESTful web services.
* Worked on pushing data from development to third party Database using REST API’s.
* Experienced in Python and Django in creating graphics, JSON processing, data exchange and business logic implementation.
* Experienced in working with server-side technologies including databases, RESTFUL API and MVC design patterns.
* Wrote Python routines to log into the websites and fetch data for selected options.
* Wrote Python scripts to parse JSON documents and load the data in database.
* Worked on Python Modules and Packages.
* Developed and deployed corporate intranet platforms for data visualization and analytics using Python, Django, Django Rest Framework, PostgreSQL backend.
* Wrote python scripts to parse JSON documents and load the data into database.
* Involved in Unit testing and Integration testing of the code using PyTest.
* Interacted with QA to develop test plans from high-level design documentation.
* Developed Automation/test python scripts to test. Used Django configuration to manage URLs and application parameters.
* Improved code reuse and performance by making effective use of various design patterns
* Environment: Python 3, Django 1.9, HTML5, CSS, JSON, PostgreSQL, Gitlab, Linux

**Wells Fargo, Albuquerque, NM June 2013 – May 2016**

**Python Developer**

**Description:**  Wells Fargo & Company is an American multinational financial services company. I designed and applied machine learning algorithms/models on bank data to predict customer behaviors. I developed and maintained production Python code of several data science projects.

**Responsibilities:**

* Worked on Pandas to import the data, sort and plot the statistical data.
* Used Pandas API to put the data as time series and tabular format for east timestamp data manipulation and retrieval.
* Work on Text Analytics, Naive Bayes, Sentiment analysis, creating word clouds and retrieving data from Twitter and other social networking platforms.
* Different testing methodologies like Unit testing, Integration testing, Web application testing were performed.
* Used Pandas for Statistical Analysis in the application and Numpy for the advance math functionalities.
* Used classification and regression techniques to predict the outcome of some of the missing data.
* Involved in creating Hive tables, loading with data and writing hive queries that will run internally map Reduce way.
* MySQL Procedures and MySQL Connector, PyMySQL were designed and developed for Data import/export and conversions.
* Created Dashboard reports using Tableau once the data analytics completed.
* Composed moderate to complex SQL queries to analyze large and complex data sets.
* Used ETL for handling of the raw data, organizing and structuring the data.
* Views and Templates were developed with Python and to create a user-friendly website interface Django view controller and template language is used.
* Ensured high quality data collection and maintaining the integrity of the data.
* Involved in Unit testing the SQL Scripts for report development, Tableau reports, Dashboards and handled the performance issues effectively.
* Worked on Big data analytics like Apache Hive, Apache HBase.
* Developed and implemented the user registration and login feature for the application process from scratch by extending Django user model.
* Designed and developed data management system using MySQL.

**Environments**: Python, Django, Hive, Tableau, MySQL, Hadoop, Linux, Pandas, Numpy, Matplotlib, Seaborn, Scikit-learn, TensorFlow, Feature extraction, K-means Clustering, Machine learning, regression, classification, NLTK, SVM, and MapReduce.