**MANISH NIRAULA**

**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, 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.
* 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 specification**s 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.**
* 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**

**LokHeed Martin Corporations, Fort Worth, TX Jan 2018 – Till date**

**Software Engineer (Python)**

**Job Descriptions:** Participate in all phases of software development life cycle for supporting initial system design concepts, Software requirements development, design, implementation, integration and test. Projects involved the experience in avionic systems such as datalinks, stores management, mission computers, pilot vehicle interfaces etc.

**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**.
* 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
* Developed views and templates using **Python** and **Django’s view controller**.
* Developed various algorithms for generating several data patterns
* 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.
* 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.
* Angular.js is used to build efficient backend for client web application
* 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.
* Used Agile Methodology and Scrum Process.

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

**UBS, Chicago, Illinois, United States Jun 2017 – Dec. 2017**

**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

**Ubisense Solutions, Denver, CO Aug 2016 – May 2017**

**Python Developer**

**Job Descriptions:** Support web mapping and Geospatial Information System software (GIS) delivery for domestic and international customers. Assisted in development of well responsive web pages using python, Django, HTML5 and CSS.

**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.
* 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.
* 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.
* 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.
* 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.
* Developed Python code using JSON and XML to produce HTTP GET request, parsing HTML data from website.
* 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.

**Birat model Hospital (software group), Biratnagar, Nepal Jul 2013 – May 2016**

**Python Developer**

**Job Descriptions:** Develop Hospital Management software system for Birat Model Hospital. Assisted to the system as a back-end developer using python to implement the features such as appointment scheduling, patient registrations and admission, doctor records, diagnosis and other records.

**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
* Performed unit testing.
* 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.
* Using Git 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.

**LeapFrog Technologies, Kathmandu, Nepal Nov 2011 – Jun 2013**

**Python Developer**

**Job Descriptions:** Build fast, efficient and user-friendly School management system. It was aimed to manage the database of the students, staffs and teachers in the school and update the account of each person. Assisted in developing front-end and back-end of the software using python, HTML, CSS and JavaScript in addition to the database connection using MySQL.

**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 Git version control tool to coordinate team-development.
* **Environment:** Python, Django. HTML, CSS, JavaScript, MySQL.

**Education**

**Master of Science**

The University of Texas at Dallas, Richardson, Texas

**Bachelor of Engineering (Computer)**

Purbanchal University School of Engineering and Technology, Nepal