**Navpreet Singh**

**Sr.Python Developer**

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# PROFESSIONAL SUMMARY:

* Around **9+** of experience as a **Python Developer** in Design, Development, Implementation of **Python, Django, Flask, Pyramid and client-server** technologies-based applications, **RESTful services, AWS and SQL.**
* Experience in all phases of SDLC Process across various workflows (Requirement study, Analysis, Design, Coding, Testing, Deployment and Maintenance) in Web & Client/Server application development.
* Extensive experience in developing web applications using **Python, Django, Flask, Pyramid, Sanic** frameworks and with several python libraries including **Beautiful soup, Twisted, NumPy, Pandas, matplotlib, SciPy, PyQt, Scapy, SQLAlchemy, Boto, logging, Nose, Blaze, Hug**.
* Good experience in developing web applications implementing **MVT** architecture using **Django, Flask**, web application frameworks, with good understanding of **Django ORM and SQLAlchemy.**
* Hands-on experience with industry-standard IDEs like **PyCharm, Sublime, Emacs, Eclipse, NetBeans, Intellij, and TOAD.**
* Extensive experience in developing applications by implementation of web based and client/server application using **HTML, React JS,  Bootstrap, PHP, CSS, JavaScript, Bootstrap, D3.js.**
* Good experience in **Shell Scripting, Oracle RDBMS, SQL Server, UNIX and Linux.**
* Good knowledge of **TCP/IP, UDP, HTTP, HTTPS, SSH and SSL protocols.**
* Expert at version control systems like **Git, SVN** and **CVS**, Migrated repos from **SVN to Github.**
* Experienced in requirement gathering, use case development, Business Process flow, Business Process Modeling: extensively used **UML** to develop various use cases, class diagrams and sequence diagrams.
* Proficient in writing **SQL** Queries, Stored procedures, functions, packages, tables, views, triggers using relational databases like **Oracle, MySQL and MSSQL Server**.
* Have Data warehousing experience in Business Intelligence Technologies and Database with extensive Knowledge in Data analysis, **TSQL** queries, **ETL**, Reporting Services (using SSRS, Power BI) and Analysis Services using SQL Server.
* Experienced with databases using **ORMs/DOMs** for integrating with **MySQL, Postgres, MongoDB and SQLite**. Also, experienced with writing custom queries through database connectors.
* Good Experience in Linux Bash scripting and following PEP Guidelines in Python.
* Experience in developing consumer-based features and applications using **Python, Django, HTML**, Behavior Driven Development (**BDD**) and pair-based` programming.
* Expertise in using **Django** **evolution** and manual **SQL** modifications, able to modify Django models while retaining all data, while site was in production mode.
* Experience in using Request library and **JSON** to interact with Rest services and in interacting with Database.
* Experience in Unit testing, System Integration testing (**SIT**), User acceptance testing (**UAT**), Functional testing.
* Experience in all phases of **SDLC** like Requirement Analysis, Implementation and Maintenance, and extensive experience with Agile and **SCRUM**.
* Highly motivated, quality minded developer, with proven ability to deliver applications against tight deadlines.

# TECHNICAL SKILLS:

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| --- | --- |
| **Languages** | Python, Java, SQL, PL/SQL. |
| **IDE’s** | PyCharm, Eclipse, NetBeans, Sublime, SOAP UI |
| **Web Technologies & Cloud** | Django, Flask, Pyramid, AJAX, HTML5, CSS3, XML/XSD, XPath, XSLT,React JS, JavaScript, jQuery, Web Services (Soap, Restful), Amazon Webservices like EC2, S3, ELB, EBS, PyUnit; Azure. |
| **Databases** | SQL Server, Oracle 9i/10g/11g, MySQL, PostgreSQL, SQLite, Cassandra. |
| **Frameworks** | Django, Flask, Bootstrap, CherryPy, web2py, Pyramid, Robot |
| **Web Servers** | JBoss, BEA Web Logic, Web Sphere, Apache Tomcat |
| **Version Controls** | SVN, CVS, Git. |
| **Operating Systems** | MS Windows, Linux/Unix |
| **Building & Bug Tracking Tools** | ANT, MAVEN, UML, JIRA, Bugzilla |
| **Methodologies** | Agile, Scrum, Waterfall |

# PROFESSIONAL CERTIFICATION

* SCRUM MASTER I & SCRUM PRODUCT OWNER II
* Project Management Professional (PMP)
* Agile Certified Practitioner (ACP)

# PROFESSIONAL EXPERIENCE:

**Client: Apple, Cupertino CA                                                                                     Feb 2020 - Till Date**

**Role: Sr.Python Developer**

**Responsibilities:**

* Gathering requirements and translating the business details into Technical design.
* Implemented responsive user interface and standards throughout the development and maintenance of the website using the **HTML, CSS, JavaScript, Bootstrap, JQuery**.
* Developed views and templates with **Python** and **Django's** to create a user-friendly website interface.
* Developed and tested many features for dashboard using **Python, HTML, JavaScript, CSS and Bootstrap**,
* Utilized Python libraries like **wxPython, NumPy, Twisted, PyQT, Web2py, Pygal, and Plot.ly.**
* Developed various API’s for Django applications using **Django-tastypie**.
* Used **Amazon Elastic Beanstalk with Amazon EC2** instance to deploy **Django** project into AWS. Configured continuous integration with **Jenkins on Amazon EC2**.
* Implemented **SQLAlchemy** as ORM mapping tool for complete access and Wrote SQL queries and maintained **PostgreSQL RDBMS** in the local development environment.
* Wrote and executed various **MySQL** database queries from python using **Python-MySQL** connector and MySQL DB package.
* Managed large datasets using **Pandas API** to analyze different segments of customers based on Location.
* Development of Python APIs to dump the array structures in the Processor at the failure point for debugging.
* Performed troubleshooting, fixed and deployed many Python bug fixes of the two main applications that were a main source of data for both customers and internal customer service team.
* Automated **RabbitMQ** cluster installations and configuration using **Python/Bash**.
* Creating RESTful web services for Catalog and Pricing with **Django MVT, MySQL, and MongoDB.**
* Collaborated within a team using an agile development workflow and widely-accepted collaboration practices using Git.
* Implemented Multithreading module and complex networking operations like raceroute, **SMTP mail server** and web server Using Python.
* Used standard Python modules like csv, robotparser, itertools, pickle to ensure privacy of sensitive data.
* Written test cases using **PyUnit** for better manipulation of test scripts.
* Used automation Jenkins for continuous integration on **Amazon EC2**.
* Used **JIRA** for Bug tracking and issue tracking.
* Worked as part of an Agile/Scrum based development team and exposed to TDD approach in developing applications.

**Environment:** Python, Django, CherryPy, HTML5, CSS, Bootstrap, JSON, JavaScript, Git, AJAX, RESTful webservice, MySQL, SQLite, Cassandra, AWS (EC2, S3), PyUnit, Karma, Jenkins, Windows.

**Client: AutoZone INC, Memphis TN** **Nov 2018 – Jan 2020**

**Role: Sr.Python Developer**

**Responsibilities:**

* Involved in project life cycle including design, development, implementation, verification and validation
* Developed the application front end using **HTML, CSS, React JS, JavaScript, Bootstrap, Django** framework.
* Extensively utilized Python frameworks like **Django, Flask, Sanic, PyUnit and libraries like matplotlib**.
* Designed applications implementing MVC architecture in **Pyramid, Zope** frame works.
* Created a Python/Django based web application using Python scripting for data processing, MySQL for the database, and **HTML/CSS/JQuery and HighCharts, matplotlib** for data visualization of sales, tracking progress, identifying trends.
* Participate in the design, build and deployment of NoSQL implementations like MongoDB.
* Added support for Amazon AWS S3 and RDS to host static/media files and the database into Amazon Cloud.
* Extensive code reviewing using GitHub pull requests, improved code quality also conducted meetings.
* Developed server-based web traffic using RESTful API’s statistical analysis tool using Flask, Pandas.
* Wrote PL/SQL views, Stored Procedures, database triggers & Packages.
* Enhanced by adding Python XML SOAP request/response handlers to add accounts, modify trades and security updates.
* Developed Complex transformations, Mapplets using Informatica to **Extract, Transform and load (ETL)** data into Data marts, **Enterprise Data warehouse (EDW) and Operational data store (ODS).**
* Used Jenkins pipelines to drive all micro services builds out to the Docker registry and then deployed to Kubernetes, Created Pods and managed using Kubernetes
* Recording of Scripts Web Services HTML using **Vugen and SoapUI**, script validation through co correlations, parameterizations and other methods.
* Worked with **RDBMS like Oracle 11g/10i and MySQL** databases to query and read data.
* Developed various Python scripts to find vulnerabilities with SQL Queries by doing SQL injection, permission checks and performance analysis.
* Developed scripts to migrate data from proprietary database to **PostgreSQL**.
* Implemented continuous integration using integration tool Jenkins.
* Created backend database **T**-**SQL** stored procedures and Jasper Reports.

**Environment:** Python, Django, HTML5, CSS, Bootstrap, JQuery, JSON, JavaScript, React JS, PostgreSQL, T-SQL, MongoDB, SoapUI, Vugen, Oracle 11g/10i, Ansible, MySQL, Amazon AWS S3, JIRA.

**Client: Transunion, Chicago IL Mar 2017 - Nov 2018**

**Role: Sr.Python Developer**

**Responsibilities:**

* Implemented advanced python packages like **NumPy, SciPy** for various sophisticated numerical and scientific calculations. Performed SQL queries on relational database level to pre-process raw data to form a specific format for later data analysis use and created Python scripts to add eternal connection with Tableau for conducting sentiment analysis.
* Used Pandas API to put the data as time series and tabular format for east timestamp data manipulation and retrieval. Worked on statistical analysis by processing of collected data and Data Visualization using **Python Pandas, Matplotlib, SciPy and NumPy packages.**
* Documented the business requirements and framing the business logic for the ETL process. Designed and documented the error-handling strategy in the ETL load process. Prepared the complete ETL specification document for all the ETL flows.
* Developed the ETL detail design documents for each target tables (Fact and dimension tables). Created primary objects (tables, views, indexes) required for the application Designing **ETL** jobs. Used Informatica as an ETL tool.
* Created real-time dashboard for Executives, utilizing Logstash, graphite, Elastic Search, Kibana & Redis.
* Configured management tools like **PUPPET and ANSIBLE jQuery and AJAX** call used for more interactive web pages. Ensured quality versioning with GIT.
* Performed continuous integration and automation using **JENKINS** & Used JIRA for tracking and Updating Project issue.
* Responsible for Configuring **Kafka** Consumer and Producer metrics to visualize the Kafka System performance and monitoring.
* Analyzed the SQL scripts and designed it by using PySpark SQL for faster performance. Worked on data processing and transformations and actions in spark by using PySpark language.
* Developed a fully automated continuous integration system using Git, Jenkins, MySQL, and custom tools developed in Python and Bash.
* Implemented the MVC architecture using Apache Struts Framework & Experience in Python open stack API's.
* Worked with Rational ClearCase to provide sophisticated version control, workspace management and parallel development support.
* Developed PySpark programs and created the data frames and worked on transformations.
* Implemented Docker containers to create images of the applications and dynamically provision slaves to Jenkins CI/CD pipelines. Designed process-oriented UNIX script and ETL processes for loading data into Datawarehouse.
* Created Restful APIs to integrate and enhance functionalities of the application. Also Utilized Restful API in communicating with third parties.

**Environment:** Python, Django, ETL, JQuery, JSON, JavaScript, PostgreSQL, T-SQL, MongoDB, SoapUI, PUPPET, Oracle 11g/10i, Ansible, MySQL, Amazon AWS S3, JIRA.

**Client: Kaiser Permanente, Pleasanton CA May 2014 - Feb 2017**

**Role: Sr.Python Developer**

**Responsibilities:**

* Worked independently and collaboratively throughout the complete analytics project lifecycle in- clouding data

extraction/preparation, design and implementation of scalable machine learning analysis and solutions, and

documentation of results.

* Developed entire frontend and backend modules using **Python on Django** Web Framework.
* Used Django framework for application development.
* Designed and developed the UI of the website using **HTML, AJAX, CSS and JavaScript**
* Moved the mappings from development environment to test environment.
* Designed **ETL Process using Informatica** to load data from Flat Files, and Excel Files to target Oracle Data

Warehouse database.

* Interacted with the business community and database administrators to identify the Business requirements

and data realties.

* Created various transformations according to the business logic like Source Qualifier, Normalizer, Lookup,

Stored Procedure, Sequence Generator, Router, Filter, Aggregator, Joiner, Expression and Update Strategy.

* Created Informatica mappings using various **Transformations** like Joiner, Aggregate, Expression, Filter and

Update Strategy.

* Implemented Apache Airflow for authoring, scheduling and monitoring **Data Pipelines**.
* Created tasks and workflows in the Workflow Manager and monitored the sessions in the Workflow Monitor.
* Perform Maintenance, including managing Space, Remove Bad Files, Remove Cache Files and monitoring

services.

* Designed and developed Web services using **XML and jQuery**. Improved performance by using more modularized approach and using more in-built methods.
* Built various graphs for business decision making using **Python matplotlib library**. Used NumPy for Numerical analysis for Insurance premium.
* Worked on ETL Migration services by developing and deploying **AWS Lambda** functions for generating a serverless data pipeline which can be written to Glue Catalog and can be queried from Athena.
* Created data pipelines for different events to load the data from DynamoDB to AWS S3 bucket and then into

HDFS location

**Environment:** Python, Django, ETL, JQuery, JSON, JavaScript, PostgreSQL, T-SQL, MongoDB, SoapUI, Oracle 11g/10i, MySQL, Amazon AWS S3, JIRA.

**Client: Aeropostale Inc, Lyndhurst NJ Jun 2012 – Apr 2014**

**Role: Python Developer**

**Responsibilities:**

* Developed Map Reduce/Spark Python modules for machine learning & amp; predictive analytics in Hadoop on

AWS. Implemented a Python-based distributed random forest via Python streaming.

* Analyzing and visualizing the data by using Matplotlib and seaborn libraries in Python. Processed the Raw data from CSV files in to organized form by applying Data Cleaning techniques using Pandas and NumPy.
* Documented the design documents using Class Diagrams and Sequence Diagrams using IBM Rational rose.
* Used **Python scripts** language on **LAMP** Server to develop web-application with **MySQL** as the database.
* Used Python libraries like beautiful soup, matplotlib, PyTest, Tweepy, urllib2.
* Utilized **CherryPy** coupled with **Nginx** to serve Python **WSGI** based applications.
* Designed and maintained databases using Python and developed Python based **API** (RESTful Web Service) using **Flask**-**SQLAlchemy** with **Oracle database.**
* Extensively used **XML** and **RESTful** Web Services to retrieve and send data from different applications.
* Used **CVS** as a version control software.
* Performed troubleshooting, fixed and deployed many **Python** bug fixes of the two main applications that were a main source of data for both customers and internal customer service team.
* Involved in optimizing the python program by following best practices with different Data structures that best enhances the performance of application.
* Created Several **XML Schemas** and Developed Stored **PL/SQL** Procedures and Packages to automatically create and drop table indexes.
* Experience in creating test cases using **PyUnit** framework and used fiddler as logging tool to get detailed report of traffic between clients.
* Involved in doing **AGILE** practices and planning of sprint attending daily agile meetings and **SPRINT** meetings to produce quality deliverables within time.

**Environment:** Python, Django, CherryPy, HTML, CSS, XML, Bootstrap, JQuery, JSON, JavaScript, SQLAlchemy, IBM Rational Rose, Oracle, MySQL, REST webservices, LAMP.

**Education: -** University of Phoenix ~ MBA 2009; Bachelors in Business Administration 2006.