**Rajnikanth Penna Selvan**

**Python Developer**

**Professional Experience:**

* Over 8 years of experience designing, developing, testing and implementing stand-alone and client-server architecture-based enterprise application software in Python in different domains.
* Proven expertise in Python using new tools and technical developments (libraries used: Beautiful Soup, Jasy, numpy, Scipy, matplotlib, Pickle, PySide, python-twitter, Pandas dataframe, networks, urllib2) and MySQL dB for database connectivity.
* Good experience in developing web applications implementing Model View Control architecture using Django, Flask, Pyramid and Zope Python web application frameworks.
* Experienced in working with various Python Integrated Development Environments like Net Beans, PyCharm, PyScripter, Spyder, PyStudio, PyDev and Sublime Text.
* Strong expertise in development of web-based applications using Python, Django, HTML, XML, Angular JS, CSS, DHTML, JavaScript, JSON and JQuery.
* Good knowledge of front end technologies like CSS and Bootstrap.
* Experienced in Agile Methodologies, Scrum stories and Sprints in Python-based environments, along with data analytics, data wrangling and Excel data extraction.
* Sound experience in Core Java and Object Oriented Programming using concepts like Multi-Threading, Exception Handling and Collections.
* Experience using Jenkins/Hudson for Continuous Integration and Ant/Maven build tools.
* Good knowledge of SOAP and REST web services.
* Experience setting up Python REST API Frameworks using Django.
* Good knowledge of NoSQL databases like Apache Cassandra (1.2, 2.0 and 2.1, Mongo DB (2.6, 2.4) and Orient DB.
* Natural language processing (NLP) is an exciting field in data science and artificial intelligence that deals with teaching computers how to extract meaning from text. In this guide, we'll be touring the essential stack of Python NLP libraries.
* These packages handle a wide range of tasks such as part-of-speech (POS) tagging, sentiment analysis, document classification, topic modeling, and much more.
* Hands on experience working in WAMP (Windows, Apache, MYSQL, and Python/PHP) and LAMP (Linux, Apache, MySQL, and Python/PHP) Architecture.
* Experience in using various version control systems like CVS, Git, GitHub and Amazon EC2 and deployment using Heroku.
* Proficient in writing, maintaining and improving automation scripts in Perl, BASH, PHP and Python.
* Proficient in writing SQL queries, stored procedures, functions, packages, tables, views, and triggers using relational databases like Oracle, DB2 and MySQL.
* Experience working with Python ORM Libraries including Django ORM and GUI frameworks - PyJamas and Jython.
* Reviews, mentors and coaches, while defining and promoting use of standards, best practices and lessons learned.

**Python Developer May 2017 to Present**

**Walmart Bentonville, AK**

**Responsibilities:**

* DB2 SQL Procedures and UNIX Shell Scripts were designed and developed for Data Import/Export and Conversions.
* A Django dashboard with custom look and feel for end user was created after a careful study of the Django admin site and dashboard.
* Unit Test Python library was used for testing many programs in Python and other code.
* Worked on Selenium testing framework.
* JIRA was used to build an environment for development.
* Assisted in reduction of cost and optimization of supplier selection for the CRM Applications.
* Ensured high quality data collection and maintained the integrity of the data.
* Cleaned data and processed third party spending data into maneuverable deliverables within specific formats with Excel macros and Python libraries.
* Used several Python libraries like python, numPY and matPlotLib.
* Was involved in environment code installation as well as the SVN implementation and Saas.
* Built all database mapping classes using Django models and Cassandra.
* Used Pandas API to put the data in time series and tabular format for easy timestamp data manipulation and retrieval.
* We recommend NLTK only as an education and research tool. Its modularized structure makes it excellent for learning and exploring NLP concepts, but it's not meant for production.
* Text Blob is built on top of NLTK, and it's more easily-accessible. This is our favorite library for fast-prototyping or building applications that don't require highly optimized performance. Beginners should start here.
* Stanford's Core NLP is a Java library with Python wrappers. It's in many existing production systems due to its speed.
* SpaCy is a new NLP library that's designed to be fast, streamlined, and production-ready. It's not as widely adopted, but if you're building a new application, you should give it a try.
* Gensim is most commonly used for topic modeling and similarity detection. It's not a general-purpose NLP library, but for the tasks it does handle, it does them well
* The list will only include databases that either classify themselves in their marketing material as time series, or have been written about in a blog by a respected company as something they are using for time series data.
* Storage efficiency is extremely important. The purpose built TSDB's only consume a few bytes of storage per data point, which is important when you start to add up the costs.
* Designed and developed data management system using MySQL.
* Generated SWIG interfaces to co-ordinate between C++, Java and Python. Used JNI for communication between C++ and Java.
* Worked with data transformations from HDFS, HIVE, HBASE, MySQL and Pig.
* Tested, evaluated and troubleshot different NoSQL database systems and cluster configurations to ensure high-availability in various crash scenarios.
* This project also used other technologies like JQuery for Javascript manipulations, Bootstrap for the front end HTML layout and BASH Scripting.
* Wrote functional PHP unit test cases for Data Layer and Search server classes using Django, Curl, XML, JSON, REST-based services and Mongo DB.
* Used Github for version control and added support for Amazon AWS S3 and RDS to host static/media files and the database into Amazon Cloud.
* Responsible for debugging and troubleshooting the web application.
* Coded test programs and evaluated existing engineering processes.
* Designed and configured database and back end applications and programs.
* Performed research to explore and identify new technological platforms.
* Collaborated with internal teams to convert end user feedback into meaningful and improved solutions.

**Environment:** Python 2.7, scipy, Pandas, Mongo DB, Bugzilla, SVN, Java, JQuery, MySQL, Linux, Eclipse, Shell Scripting, HTML5/CSS, Red Hat Linux, Apache, BASH Shell, Ruby, Big Data, Cassandra, AWS, Saas

**Python Developer May 2015 to April 2017**

**Genfare - Chicago, IL**

**Responsibilities:**

• Django Framework was used for developing web applications to implement View Control architecture.

* Performed efficient delivery of code based on principles of Test Driven Development (TDD) and continuous integration to keep in line with Agile Software Methodology principles.
* Used Selenium for Unit testing, Integration testing and Web application testing.
* Lock mechanisms were implemented and the functionality of multithreading was used.
* Built a Python/Django based-web application, with PostgreSQL DB and integration with 3rd party email, messaging and storage services.
* Developed a fully automated continuous integration system using Git, Gerrit, Jenkins, MySQL and custom tools developed in Python and Bash.
* Design and implemented custom scripts.
* Extensive use of version controller Team Foundation Server (TFS).
* Tested and validated the custom scripts.
* Delivered automated solutions for science models.
* Managed, developed and designed a dashboard control panel for Customers and Administrators using Django, Oracle DB and PostgreSQL.
* Implemented configuration changes for data models.
* Maintained and updated existing automated solutions.
* Handled potential points of failure through error handling and communication of failure.
* Anticipated potential points of failure (database, communication points, file system errors).
* Troubleshot the process execution and worked with other team members to correct them.
* Actively worked as a part of a team with managers and other staff to meet the goals of the project in the stipulated time.
* Performed troubleshooting, and fixed and deployed many Python bug fixes for the two main applications that were a main source of data for both customers and internal customer service teams.
* Used Pandas library for statistical analysis.
* Used Numpy for numerical analysis for insurance premiums.
* Managed large datasets using Panda data frames and MySQL.
* Used advanced packages in AON Pathwise for performing unit test and deploying data models.
* Extensively used Python modules such as requests, urllib and urllib2 for web crawling.
* Developed GUI using Webapp2 to dynamically display the test block documentation and other features of Python code using a web browser.
* Developed the required XML Schema documents and implemented the framework for parsing XML documents.
* Responsible for user validations on client side as well as server side.
* Automated the existing scripts for performance calculations using Numpy and SQL Alchemy.
* Interacted with QA team to develop test plans from high-level design documentation.

**Environment:** Python 2.7, Django 1.4, HTML5, CSS, XML, MySQL, JavaScript, Angular JS, Backbone JS, JQuery, CSS, Bootstrap, Mongo DB, T-SQL, JavaScript, Eclipse, Git, GitHub, AWS, Linux, Shell Scripting.

**Python Developer July 2014 to April 2015**

**Rockwell American - Phoenix, AZ**

**Responsibilities:**  
• Worked with team of developers on Python applications for RISK management.

* Developed Python/Django application for Google Analytics aggregation and reporting.
* Used Django configuration to manage URLs and application parameters.
* Worked on Python Open stack API's.
* Used Python scripts to update content in the database and manipulate files.
* Generated Python Django Forms to record data of online users
* Used Python and Django creating graphics, XML processing, data exchange and business logic implementation
* I have used Pandas API to put the data as time series and tabular format for east timestamp data manipulation and retrieval.
* Added support for Amazon AWS S3 and RDS to host static/media files and the database into Amazon Cloud.
* Used Pandas library for statistical Analysis.
* Developed tools using Python, Shell scripting, XML to automate some of the menial tasks. Interfacing with supervisors, artists, systems administrators and production to ensure production deadlines are met.
* Worked very closely with designer, tightly integrating Flash into the CMS with the use of Flashvars stored in the Django models. Also, created XML with Django to be used by the Flash.
* Used HTML, CSS, JQuery, JSON and Javascript for front end applications.
* Designed and developed the UI of the website using HTML, XHTML, AJAX, CSS and JavaScript.
* Also, used Bootstrap as a mechanism to manage and organize the html page layout.
* Used Django configuration to manage URLs and application parameters.
* Wrote and executed various MYSQL database queries from Python using Python-MySQL connector and MySQL package.
* Involved in development of Web Services using SOAP for sending and getting data from the external interface in the XML format.
* Worked on development of SQL and stored procedures on MYSQL.

**Environment:** Python, Django, Panda API, AWS, JSON, PHP, Flash, Shell Scripting, HTML, CSS, AJAX, JQuery, XML, SOAP, Jira, Agile, SQL, MYSQL and Windows.

**Python Developer December 2013 to June 2014**

**HP –  Dallas, TX**

**Responsibilities:**

* Wrote Python routines to log into the websites and fetch data for selected options.  
  Used Python modules such as requests, urllib, and urllib2 for web crawling.
* Used other packages such as Beautifulsoup for data parsing.
* Worked on writing and as well as read data from csv and excel file formats.
* Developed a MATLAB algorithm which determines an object's dimensions from digital images.
* Web-services backend development using Python (CherryPy, Django, SQL Alchemy).
* Participated in developing the company's internal framework on Python. This framework became a basement for the quick service's development. Framework based on CherryPy with GnuPg encryption (reGnuPg module) on the top.
* Worked on resulting reports of the application and Tableau reports.
* Worked on HTML5, CSS3, JavaScript, AngularJS, Node.JS, Git, REST API, Mongo DB, intelliJ IDEA.
* Design and Setting up of environment of Mongo dB with shards and replica sets. (Dev/Test and Production).
* Private VPN using Ubuntu, Python, Django, CherryPy, Postgres, Redis, Bootstrap, Jquery, Mongo, Fabric, Git, Tenjin, Selenium, Sphinx, Nose
* Modifying data using SAS/BASE, SAS/ MACROS.
* Extracting data from the database using SAS/Access, SAS SQL procedures and create SAS data sets.
* Performed QA testing on the application.
* Web application development using Python 3.2/2.7, Django 1.9, Flask, MongoDB, JavaScript, AJAX, HTML, XML and template languages.
* Extensively used Python / Django / Flask Framework for developing backend of applications.
* Developed approaches for improving NLP pipeline.
* Create custom VB scripts in repackaging applications as needed.
* NLP File Prep Settlement-Prepare files for review for Settlement.
* Held meetings with client and worked all alone for the entire project with limited help from the client.
* Participated in the complete SDLC process.
* Developed rich user interface using CSS, HTML, JavaScript and JQuery.
* Created a Python based GUI application For Freight Tracking and processing
* Used Django framework for application development.
* Developed and maintained various automated web tools for reducing manual effort and increasing efficiency of the Global Shipping Team.
* Created database using MySQL, wrote several queries to extract data from database.
* Setup automated cron jobs to upload data into database, generate graphs, bar charts, and upload these charts to wiki and backup the database.
* Wrote scripts in Python for extracting data from HTML file.
* Effectively communicated with the external vendors to resolve queries.

**Environment:** Python 2.7, Django 1.4, MySQL, Windows, Linux, HTML, CSS, JQuery, JavaScript, Apache, Linux, Quality Centre

**Python Developer March 2011 to November 2013**

**ACE Cash, TX**

**Responsibilities:**

• Worked on the project from gather requirement developing the entire application, with help from other

* Used Django configuration to manage URLs and application parameters.
* Generated Python Django Forms to record data of online users
* Used Python and Django creating graphics, XML processing, data exchange and business logic implementation
* Used Python based GUI components for the front end functionality such as selection criteria.
* Designed and developed the UI of the website using HTML, XHTML, AJAX, CSS and JavaScript.
* Also used Bootstrap as a mechanism to manage and organize the html page layout.
* Used Django configuration to manage URLs and application parameters.
* Added support for Amazon AWS S3 and RDS to host static/media files and the database into Amazon Cloud.
* Use of Python Frameworks for data analysis including Sqlalchemy.
* Designed and created backend data access modules using PL/SQL stored procedures and Oracle 9i.
* Experience in Data warehousing (ETL), DB Administration using Teradata.
* Have extensively worked in Teradata Tools.
* Involved in Logical & Physical Database Layout Design.
* Created table structure for data marts in Netezza.
* Created data load process to load data from OLTP sources into Netezza
* Created database access layer using JDBC and PL/SQL stored procedures.
* Involved in analysing Business Requirement Documents and Technical Specification document and developed test plan and test cases for testing the application.
* Prepared Test Matrix to keep track of the requirements and the test cases.
* Identified test cases to automate. Automate those test cases using Selenium WebDriver, Junit and Java technologies (Eclipse IDE). Contributed in framework creation.
* Extensively used Page Objects design and page navigation framework for readable test script and easy maintenance from developer perspectives.
* Developed test automation scripts using Selenium WebDriver for regression and performance testing of the various releases of the application.
* Performed manual testing of each build and then regression testing on each builds using Selenium
* Performed UI testing and front end testing using Selenium.
* Used Firebug to do web based application testing with selenium for the commands and locator application.
* Worked on Cross Browser testing through Selenium WebDriver by testing the website on different browsers like Chrome, IE and Firefox.
* Performed build acceptance testing and smoke testing using Cucumber automation tool.
* Developed Test Framework in Selenium for UI Regression Test Automation and when necessary and potentially execute Unit Test automation (Java/Junit).
* Involved in writing unique XPath using firebug and fire path to identify web elements.
* Developed data driven test scripts to check the same functionality with multiple sets of data.
* Created the tests that have no user interaction as a set and executed them as Batch tests using ANT.
* Performed data driven testing by using JDBC as a data source in SOAP UI and configured SQL queries to fetch data from the Oracle database.
* Conducted System Testing and User Acceptance Testing for every client and Conducted Backend testing writing extensive SQL queries.;
* Performed the testing of Restful web services for mobile apps for the Using SOAP UI.
* Conducted backend testing using SQL queries to validate data for database and Used SQL queries for retrieving data from database for executing user specific test cases.
* Involved in documentation as to how to maintain and run scripts for future enhancements. Responsible for testing the application against different environments in QA, staging and production.
* Developed and maintained innovative, repeatable QA test plans as well as performance test plans based on functional requirements, use cases, user interface designs, system design documents and domain knowledge
* Worked on Win Runner 7.6, Load Runner 7.5, Test Director 7.6 and QTP.

Analysed the business requirements, developed test plans and created test cases in Quality centre, a test.   
  
**Environment:** Java, Selenium Web Driver (2.37.0), Junit, Jen, Python, Django, JSON, HTML, CSS, AJAX, JQuery, Bootstrap, AWS, XML, SOAP, GitHub, Jira, Agile, SQL, PL/SQL, MYSQL, Oracle, Netezza and Windows.

**Python Developer July 2008 to February 2011**

**Macmillan Publishing, NY**

**Responsibilities:**

* Work with team of developers on python applications for RISK management.
* Designed and developed the UI of the website using HTML, AJAX, CSS and JavaScript
* Made Django web based apps for Insurance premium calculations.
* Generated property list for every application dynamically using Python.
* Creating unit test/regression test framework for working/new code.
* Using Subversion version control tool to coordinate team-development.
* Responsible for debugging and troubleshooting the web application
* Designed and developed data management system using MySQL.
* Rewrite existing Java, C++ application in Python.
* Designed the architecture of the hardware environments and methodology of the code.
* Experienced in Agile Methodologies and SCRUM Process.
* Involved in entire lifecycle of the projects including Design, Development, and Deployment, Testing and Implementation and support.
* Used Pandas library for statistical Analysis.
* Used Numpy for Numerical analysis for Insurance premium.
* Generated property list for every application dynamically using python.
* Handled all the client side validation using JavaScript.
* Creating unit test/regression test framework for working/new code.
* Builds, NOSQL queries implementing functions, packages, views, triggers, and tables.
* Using Subversion version control tool to coordinate team-development.
* Responsible for debugging and troubleshooting the web application.
* Handling the day to day issues and fine tuning the applications for enhanced performance.

Worked in development of applications especially in UNIX environment and familiar with all of its   
  
**Environment:** Python, Django 1.3, MySQL, Linux, HTML, XHTML, CSS, AJAX, JavaScript, and Apache Web Server, NO SQL.