**Prasanna Karki**

**Professional Summary:**

* Over 6 years of extensive experience in Machine Learning solutions to various business problems and generating data visualizations using Python.
* Experience as a Professional Qualified Data Scientist in Data Science and Analytics including Machine Learning, Data Mining, and Statistical Analysis
* Used Pandas, NumPy, Pickle, Scikit-learn in Python for developing various machine learning models.
* Hands on experience in implementing Naive Bayes, Random Forests, Decision Trees, Linear and Logistic Regression, SVM, Clustering, neural networks, Principle Component Analysis and good knowledge on Recommender Systems.
* Implemented deep learning models and numerical Computation with the help of data flow graphs using Tensor Flow Machine Learning.
* Worked with numerous data visualization tools in python like matplotlib, seaborn, ggplot, pygal.
* Experience in designing visualizations using Tableau software and publishing and presenting dashboards, Storyline on web and desktop platforms.
* Used the version control tools like Git.
* Worked and extracted data from various database sources like Oracle, SQL Server, DB2, and Teradata.
* Good knowledge of Hadoop Architecture and various components such as HDFS, Job Tracker, Task Tracker, Name Node, Data Node, Secondary Name Node, MapReduce concepts, and ecosystems including Hive and Pig.
* Strong experience in Software Development Life Cycle (SDLC) including Requirements Analysis, Design Specification and Testing as per Cycle in both Waterfall and Agile methodologies.
* Proficient knowledge in statistics, mathematics, machine learning, recommendation algorithms and analytics with excellent understanding of business operations and analytics tools for effective analysis of data.
* Highly self-motivated, enthusiastic, and result-driven with the ability to effectively communicate with all levels of the organization including senior management and executives.
* Guide the development teams to break down large and complex user story into simplified versions for execution.

**TOOLS AND TECHNOLOGIES:**

|  |  |
| --- | --- |
| **Machine Learning** | **Regression analysis, Decision Tree, Random Forests,**  **Naïve Bayes, SVM, Neural Network, K-Means Clustering and KNN.** |
| **Programming Languages** | **Python (2 &3), SQL, Java, C/C++, Scala, PHP** |
| **Frameworks and Toolkits** | **NumPy and Pandas.** |
| **Statistical Methods** | **Descriptive statistics, Hypothesis Testing, ANOVA, Chi-square testing,**  **F-tests, Confidence Intervals, Bayes Law, Dimensionality Reduction,**  **ROC curve.** |
| **Databases** | **Oracle 10g/9i/8i, MS SQL Server 2008, MS Access, MySQL 5.x,** |
| **Operating Systems** | **Windows NT/2000/XP/7,8&10, Windows Server 2008.** |

**Work Experience:**

**T-Mobile, January 2017 - Present**

**Dallas, TX**

**Python Developer**

**Responsibilities:**

* Developed Consumer-based custom features and applications using Python, Django, and HTML.
* Experienced with Software Development Life Cycle, Database designs, agile methodologies, coding, testing of enterprise applications and IDE's such as Jupiter Notebook, PyCharm, Emacs, WebStorm, Intellij and Visual Studio.
* Experienced with Python Libraries Beautiful Soup, NumPy, Pandas data frame, Matplotlib, python-twitter, urllib2.
* Experience in developing web-based applications using Python, Django, PHP, XML, CSS, HTML, JavaScript and jQuery.
* Extensive experience in designing and implementing various web applications in WAMP (Windows, Apache, MySQL, PHP).
* Experienced in application of various machine learning algorithms and statistical modeling techniques like decision trees, regression models, and SVM in Python
* Extensive experience in designing and implementing various web applications in both LAMP (Linux, Apache, MY SQL, PHP) Environments.
* Working with backend python automation, CI pipelines, Docker and cloud provisioning/automation.
* Experience with Django and Flask a high-level Python Web framework.
* Good experience with following PEP Guidelines in Python.
* Experienced in MVC frameworks like Flask and Pyramid and MVT framework like django.
* Experience in Implementation of MVC/ MVW architecture using Servlet, Django, and RESTful, SOAP web service and SOAPUI.
* Experience and understanding of React Redux life cycle with components and rendering to DOM.
* Good experience in Shell Scripting, UNIX commands.
* Experience in developing applications in Linux Environments such as Red Hat, CentOS, Ubuntu.
* Good Experience in Linux Bash scripting.
* Experience in working with Relational DB (RDBMD) like SQLite, MYSQL Workbench, PostgreSQL and No-SQL database MongoDB for database connectivity.
* Experience in analyzing and handling large datasets using Oracle Relational database.
* Having experienced in writing Sub Queries, Stored Procedures, Triggers, Cursors, and Functions on MySQL, PL/SQL and PostgreSQL database.
* Basic Knowledge on JSON based REST Web services and Amazon Web services.
* Basic knowledge on Rest API and JSON Parsing, jQuery and Angular JS
* Experience in building frameworks in Python for Test Automation.
* Having Good Experience in Object Oriented Concepts with Python.
* Extensive experience in using Python/Perl to code and design various phases for data processing pipeline.
* Experienced on Installation, Integration and Configuration of third party tools, Content Management System (CODEIGNITER, Zend, Laravel, Smarty).
* Good knowledge on IBM WebSphere Application Deployment and maintenance of an application on Application Server using clusters concept and IBM Tivoli Monitoring.
* Good knowledge in various phases of SDLC Requirement Analysis, Design, Development and Testing on various Development and Enhancement Projects.
* Experienced in Agile Methodologies and SCRUM process including Sprint planning, backlog grooming, Daily Standups, Code review, Pert Chart, Gant Chart.
* Good Experience in error and exceptional handling.
* Managed windows servers which included Active Directory maintenance and support
* Hands on experience with bug tracking tools such as JIRA and Bugzilla.
* Maintained customers relationship management databases (MySQL / PostgreSQL)
* Unit testing for the entire code to fix bugs.
* Wrote AJAX framework to transform Datasets and Data tables into HTTP-serializable JSON strings.
* Experience in writing test plans, test cases, test specifications and test coverage.

**Environment:** Python, Django, Web Framework, HTML5, CSS3, Bootstrap, MongoDB, Linux, Javascript, JQuery, AJAX, JSON, Sublime Text, Jira, Git, Django-cms, SSO, database access,Django-cms plugins, Bootstrap, Agile, Eclipse, Weblogic, GitHub, Junit, UML, JSP, Xml, SOA.

**Dell, Jun 2015 - Dec 2016**

**Austin, TX**

**Sr. Python Developer**

**Responsibilities:**

* Participated in requirement gathering and worked closely with the architect in designing and modeling.
* Developed entire frontend and backend modules using Python on Django Web Framework.
* Developed tools using Python, Shell scripting, XML, BIG DATA to automate some of the menial tasks.
* Used PyQt for the functionality filtering of columns helping customers to effectively view their transactions and statements. Implemented navigation rules for the application and page.
* Performed testing using Django's Test Module.
* Implemented
* learning schemes using Python libraries scikit-learn and scipy.
* Used Django configuration to manage URLs and application parameters.
* Involved in Web development, programming, and engineering Django, UWSGI and SQL internal admin tools behave BDD.
* Used Python and Django to interface with the JQuery UI and manage the storage and deletion of content.
* Developed a fully automated continuous integration system using Git, Jenkins, MySQL and custom tools developed in Python and Bash.
* Designed and managed API system deployment using fast http server and Amazon AWS architecture
* Implemented machine learning schemes using Python libraries scikit-learn and scipy.
* Creation of Python scripts for data access and analysis (Scripts, DataFeeds, XLS, FIXML) to aid in process and system monitoring, and reporting.
* Wrote Python scripts to parse XML documents and load the data in database.
* Generated property list for every application dynamically using Python.
* Also used Bootstrap and Angular.js as a mechanism to manage and organize the HTML page layout.
* Responsible for search engine optimization to improve the visibility of the website.
* Designed and developed the UI of the website using HTML5, XHTML, AJAX, CSS3, BIG DATA and JavaScript.
* Handled all the client side validation using JavaScript.
* Designed and developed data management system using MySQL.
* Created a Git repository and added the project to GitHub.
* Build development environment with JIRA.
* 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.

**Environment:** Python, Django, Java, Angular.js, Bootstrap, AWS, Bash, PyQt, XML, Shell Scripting, MySQL, HTML, XHTML, CSS, AJAX, JavaScript, Jenkins, Apache Web Server, Linux.

**Schlumberger, July 2014 – Jun 2015**

**Houston, TX**

**Python Developer**

**Responsibilities:**

* Understanding the functional requirements from business analysts and developing the server side modules using Python.
* Developed spark programs using Python, involved in creating Spark SQLQueries and developed the continuous workflow for spark jobs.
* Written extensive sql queries to do transformations on the data to be used by downstream models.
* Developed map reduce programs as a part of predictive analytical model development.
* Written spark python for model integration layer.
* Developed programs in Spark based on the application for faster data processing than standard MapReduce programs.
* Involved in creating Maprdb tables, loading with data and writing sql queries which will run internally in map reduce way.
* Implemented Spark SQL to access MaprDb tables into spark for faster processing of data.
* Validated the business use cases using Apache drill.
* Designed, developed, implemented and maintained solutions for using Docker, Jenkins, Git for micro services and continuous deployment.
* Written high Quality SQL and UNIX Shell Scripting code based on Business requirement.
* Extracted data from Json tables which are resides in MapRDB using pyspark.
* Used Git for version control and TFS for tracking

**Environment:** Python, MAPR Distrubution, MaprDB, Spark, Apache Drill, Anaconda distribution, Flask, Oracle, Pycharm, Docker, TFS, Jenkins, Jira, Git.

**John Deere, Mar 2013 - May 2014**

**Arlington,VA**  
**Python Developer**

**Responsibilities:**

* Developed backend modules using Python on Django Web Framework.
* Designed and developed Use- Case, Class and Object Diagrams using UML Relational Rose for Object Oriented Analysis (OOA)/Object Oriented Design techniques (OOD).
* Designed and developed data management system using PostgreSQL.
* Built application logic using Python.
* Used Apache CouchDB (NoSQL) in AWS Linux instance in parallel to RDS MySQL for storing and analysis.
* Used Django API's for databases access.
* Implemented public segmentation using unsupervised machine learning algorithms by implementing k-means algorithm using Spark.
* Used AWS RestAPI gateway and connected with lambda functionality.
* Added support for Amazon AWS S3 and RDS to host static/media files and the database into Amazon Cloud.
* Used Amazon Web Services (AWS) for improved efficiency of storage and fast access.
* Wrote AJAX framework to transform Datasets and Data tables into HTTP-serializable JSON strings.
* Used Scala to convert Hive/SQL queries into RDD transformations in Apache Spark.
* Implemented Spark Scripts using Scala, Spark SQL to access hive tables into spark for faster processing of data.
* Participated in the complete SDLC process and used PHP to develop website functionally.
* Used Python to extract information from XML files.
* Worked on development of SQL and stored procedures on MySQL.
* Build/Provision Docker container using Docker compose
* Participated in requirement gathering and worked closely with the architect in designing and modelling.
* Used F5 GTM for external DNS resolutions configured all listeners and created all zone files, A record and Names.
* DNS administration like adding/modifying/deleting IP address and DNSassignments using log messages.
* Designed and developed a horizontally scalable API's using Python Flask.
* Developed shopping cart for Library and integrated web services to access the payment (E-commerce)
* Designed Cassandra schema for the APIs.

**Environment:** Python, AWS, Linux, JavaScript, Django Framework, Docker, DNS, SQL, MySQL, LAMP, jQuery, Node.js, Apache Web Server, Scala, Spark Flask, Hive, Cassandra.