**PIYUSH KISHORE**

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**SUMMARY OF QUALIFICATIONS**

* 11+ years of vibrant experience in Full stack development, Big Data and AIML Technologies with
* Python, Django, Flask, Node, React, Vue, Pyspark.
* Developing MVC web-based applications using Python web frameworks like Django, FastAPI, Flask and Web2Py, Singleton. Expertise on Databases such as MYSQL, Oracle, PL/SQL, PostgreSQL and NOSQL databases like MongoDB, Cassandra and Big Data Topics like Kafka.
* Expertise in establishing database connections for Python by configuring packages like MySQL - Python and running various queries. Experience in python libraries like Pandas, Matplotlib, Numpy, to manipulate and visualize the data using interactive charts.
* Experiencing developing forms using HTML and performing client-side validations using JavaScript, JQuery and Bootstrap. Successfully migrated the Django database from SQLite to MySQL to Postgre- SQL with complete data integrity.
* Proven expertise in employing techniques for Supervised and Unsupervised (Clustering, Classification, PCA, Decision trees, KNN, SVM) learning, Predictive Analytics, Optimization Methods, and Natural Language Processing (NLP), Time Series Analysis.
* Experienced in WAMP (Windows, Apache, MYSQL, Python /PHP) and LAMP (Linux, Apache, MySQL, Python /PHP) Architecture.
* Proficient in AWS services such as EC2, S3, Lambda, API Gateway, DynamoDB, RDS, CloudFormation, SQS, SNS, etc.
* Experience in using Statistical procedures and Machine Learning algorithms such as XGBoost, Cluster- ing and Regression and Time Series Analysis to analyze data for further Model Building.
* Extensive working experience with Python including Scikit-learn, SciPy, Pandas, and NumPy develop- ing machine learning models, manipulating and handling data.
* Experienced with databases using ORMs/DOMs for integrating with MySQL, Postgres, Neo4J, Mon- goDB, and Cassandra SQLite. Also, experienced with writing custom queries through database connec- tors.
* Experienced in Python's modules like numpy, regular expressions, collections, dates & times and OS modules. Knowledge of Cloud Computing (Open stack(Helion), SDN (OpenFlow/Open daylight), NFV, Cloud Foundry, Docker, Ansible, Chef, Jenkins.
* Experience in scaling the CI web application horizontally with a software load balancer (HAProxy) and scalable http& web servers (gunicorn &Nginx). Design, involved in code reviews and wrote unit tests in Python and Updated site with JavaScript, JQuery, Python, Django, and SQL.
* Developed a fully automated continuous integration system using Git, Jenkins, MySQL and custom tools developed in Python and Bash. Developed Restful API's integrating web exe with Django and Python implementations with data exchange through JSON and XML formats.
* Experience of software development with Python and various libraries of Python, python-twitter, Pan- das, Dataframe, MySQLdb for database connectivity), Regular expression, File IO, etc.
* Experienced in Design, Development, and support of Data warehousing solutions for Extraction, Trans- formation and Loading (ETL) mechanisms. Experienced in installing, configuring, modifying, testing and deploying applications with Apache, Tomcat, and WebSphere.
* Designed Puppet Modules to manage configurations and automate the installation process and de- veloped automation scripting in Python using Puppet to deploy and manage Java applications across Linux servers.
* Oracle PL/SQL Development with Informatica 9.6 and Control M 7.x using best optimization tech- niques. Understand and work on Component Integration Testing, Interface Testing, System Integration testing and End to End Integration Testing.
* Created Python scripts to automate AWS services which include web servers, ELB, Cloud Front distrib- ution, databases, security groups,and application configuration.
* Experience in handling database issues and connections with SQL and NoSQL databases like MongoDB (2.6, 2.4) by installing and configuring various packages in python (Teradata, MySQL dB, MySQL con- nector, Pymongo,and SQL Alchemy).
* Maintenance and continues development of the applications in PL/SQL procedures, ETL modules and shell scripting using best practices. Containerized and Deployed the ETL and REST services on AWSECS through the CI/CD Jenkinspipe.
* Experienced in developing and deploying ML models for Supervised Learning: XGBoost, Decision Trees, KNN, SVM, Unsupervised Learning: Clustering (K-Means), PCA
* Also9 experienced in Natural Language Processing (NLP) tasks such as Sentiment Analysis, Text Analysis, Topic Modeling
* Familiarity with deep learning frameworks including TensorFlow, PyTorch, Keras and importing and us- ing pre-trained models from Huggingface and LangChain.
* Experience in deploying machine learning models using various frameworks such as MLflow, Triton Inference Server, Seldon Core, MLServer, KServe.
* Proficient in model evaluation techniques such as ROC curves, precision-recall curves, and cross-valida- tion.
* Skilled in hyper-parameter tuning and model optimization techniques to improve model performance and generalization.
* Proficient in designing Model, View, Database Architecture for a given requirement or problem state- ment irrespective of the underlying technology.
* Excellent analytical and problem-solving skills with efficient time management and result oriented at- titude.

**TECHNICAL SKILL**

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| Operating Systems | Windows, MAC OS, Unix/Linux |
| Languages | Python, Java, J2EE, Javascript, Angular, Vue JS, JEST, R, PL/SQL, JAVA, Oracle SQL. |
| Python Libraries | Numpy, Matplotlib, NLTK, pandas, Statsmodels, Scikit-learn, Scipy, gevent, Pandas, etc. |
| Python Frameworks | Flask, Django, Pyspark, FastAPI |
| Python IDE | Sublime Text 3, Eclipse, Jupyter Notebook, VIM, Pycharm, Spyder, VS Code |
| Databases and Storage | RDBMS (Oracle, SQL Server, MySQL), No SQL (MongoDb, Cassandra, Sandra), HDFS (Hadoop), PostgreSQL, SQLALCHEMY, Apache Kafka, Hadoop Hive, NAS |
| Web Technologies | CSS, JavaScript, XML, AJAX, JQuery, Bootstrap, AWS, RESTFul Web Ser- vices, GraphQL |
| Other Tools | Putty, SQL developer, JIRA, Matlab, Jira, Rally, Bit-Bucket, Github, Ker- beros |
| Frameworks | PySpark, Django, Flask, Spring, Hibernate, Oracle Application Frame- work, Oracle ADF, Oracle APEX |
| Machine Learning Tools | TesnorFlow, Pythorch, Keras, Numpy, Scipy, SparkML, pandas, scikit- learn |
| Queues | IBM MQ, REDIS, nanomsg, ZeroMQ |
| Big Data Technologies | Hadoop, SPARK, Pyspark, Spark SQL, Spark UI, Anaconda Enterprise 5, Ambari, Oozie, Yarn, High Performance Computing Cluster, Alteryx |
| CI/CD Container Services | Docker, Kubernetes, Jenkins |
| Servers | Nginx, Werkzeug, Apache Tomcat, AGSI |
| JAVA Frameworks | Spring, Hibernate, Oracle Application Framework, Oracle ADF, Oracle APEX |
| Visualization/Analytics Soft- ware | Tableau, MATLAB, Simulink, QlikView, Microsoft Excel. |

**EDUCATION:**

**M.S. in Computer and Information Technology,** Purdue University 2018

**B. Tech. in Electrical and Electronics Engineering,** NIT Jamshedpur, India 2012

**PROFESSIONAL EXPERIENCE**

**Nike,Beaverton, OR Aug 22 - Current**

**AIML Lead (Python Developer)**

**Responsibilities:**

* Forecast all the goods such as Foot-wares, Apparels, Equipment’s sold by Nike through Workbench ap- plication (WB) across Globe by training over historical data and predicting using ML algorithm XGBoost.
* Luigid is used as a workflow scheduler with python as a scripting tool for WB to integrate all the rele- vant technologies and databases to forecast the demand.
* Migrated the Workbench from Python 3.2 to 3.10 and all libraries like Feather, Arrow, Luigid, Snowflake, etc. to latest suitable versions as part of enhancing the project.
* Used Jenkins for Workbench to automatically deploy using build when a code is committed through Github.
* Moved the codebase from a local Workbench server in Beaverton-NIKE to Github. Also ,moved the ap- plication and its processing to three Azure servers as Dev, UAT and PROD as part of retiring Beaverton server which used to process the Workbench workflow and host the app. Hence, enhanced the capabilities of WB to make it more robust and fault-free.
* Deployed SONAR as a testing tool for WB and wrote unit test cases to increase the code coverage as well as test the business logic of functions as part of WB.
* Enhanced and migrated color disaggregation logic of all the products sold across Globe to Airflow as part of shifting the color-disaggregation logic of code on Airflow for better tracking of each workflow steps and able to kick the Workflow multiple times in either Dev, UAT or PROD env at the same time
* Moving to Airflow from Azure to deploy Color-Disaggregation Workflow logic enhancement allows any planner for any Business Segment to ask for his business segment to be individually forecasted and dis aggregated at any time in Demand Planning Submission cycle thus making the planning for individual regions or business segment easier and faster.
* Developed python script with snowflake queries to validate the and compare previous year forecasts with current years.
* Automated and improved over several manual steps involved over data uploads by various Demand Planning Teams used for prediction.
* All the forecast data is is displayed in an Excel UI over several tabs representing data for each Business units like Foot-wares, Apparels, Equipments for Male, Female, Kids across Globe for regions APAC, EMEA, SOCO and AMRS for NIKE stores as well as Local for Local partners.
* Integrated Pyspark, Hive and Hadoop for quicker data processing of some of the workflow steps which were needed for data preparation for model training.
* Introduced data storage in parquet format and ETL storage in HIVE, and its processing by Pyspark to reduce the running time by half during training time of Workbench.
* Headed and implemented several business requests by Demand Planning Team as part of enhancing the business logic used while training and predicting the model such as feature selections and im- provements on them.
* Headed and implemented several business requests by Demand Planning Team as part of enhancing the WB to include new business partners such as Flipkart or business segments such as any new Nike product launch or launch into a new territory or subdivide a Territory to multiple for better handling of
* business and Demand Planning across regions.
* WB is able to train on multiple user-defined features and picks up the granularities and changes for each product over each region using historical data over a minimum of 6 years over 24 Demand plan- ning Season data as training and always forecasts correctly as it utilizes state-of-the-art prediction algo-
* rithm XgBoost.
* Led the design and implementation of comprehensive ETL pipelines in Snowflake, orchestrating data ingestion, transformation, and loading processes for diverse data sources.
* Architected scalable data models in Snowflake, optimizing data structures for performance and en- abling efficient querying and analysis.
* Designed and implemented end-to-end ETL pipelines in Snowflake, streamlining data ingestion, trans- formation, and loading processes for diverse data sources which would serve as inputs to Workbench while training the model.
* Developed optimized data models in Snowflake, utilizing features like clustering keys and materialized views to enhance query performance and scalability.
* Executed advanced SQL queries in Snowflake to extract features from complex datasets, enabling Workbench to train on certain features.
* Designed and implemented GraphQL schemas to efficiently model application data and meet business requirements.
* Optimized GraphQL queries and resolvers to improve performance and reduce response times.
* Integrated GraphQL APIs with existing systems and external services via FastAPI using request format as JSON and tested using Swagger.
* Collaborated with front-end developers to define data requirements and ensure seamless integration with GraphQL APIs using JSON.
* Implemented authentication and authorization mechanisms for securing GraphQL endpoints.
* Resolved complex data fetching challenges by leveraging GraphQL capabilities such as batching and caching.
* Designed and developed RESTful APIs and microservices using Node.js and Express.js, improving system performance by 30% by integrating AWS services (EC2, Lambda, S3) to support cloud-native develop- ment, optimizing infrastructure costs by 20%.
* Engineered scalable backend systems in Node.js for e-commerce platforms handling 1M+ daily active users using MongoDB and PostgreSQL as DB, optimizing query performance by 15% and authentication and authorization solutions using OAuth2 and JWT for secure user management.
* Improved testing coverage by 35% using Mocha and Jest for Node.js, ensuring reliable code quality and performance.
* Used Terraform to create a workflow that handles different cloud dependencies while running the Workbench in a Cloud Infrastructure.
* Automated model deployment using Jenkins, Docker and Kubernetes cloud services (Kubeflow) and CICD tools whenever a Workbench model is deployed or updated.
* Developed an in-house Question Answering System that would provide all the necessary information about the products, tools and business domain knowledge supported for APLA and Demand Planning for NIKE using generative AI tools from LangChain.
* Fine-tuned pretrained NLP models using transfer learning methods like full fine-tuning and parameter efficient fine-tuning (PEFT) as part of POC to enable leadership strategy to develop in-house LLM ser- vice as part of generative AI from LangChain on AWS Bedrock.
* Evaluated LLM using ROUGE and BLEU scores on the zero shot, one shot and few shot prompts.
* Leverage prompt engineering with chatGpt (openai) API for sentiment analysis, text analysis, reporting and modeling using generative AI tools and libraries from LangChain on AWS Bedrock.
* Trained NLP Deep Learning models (RNN, CNN, Transformers) using PyTorch, TensorFlow and Hugging- face (transformer) libraries from LangChain to create generative AI models on on AWS Bedrock for NIKE Demand Planning information chatbot using generative AI.
* Created end to end workflow in ControlM for migrating Workbench towards better model deployment and testing.
* Deployed machine learning models using Triton Inference Server, optimizing for high throughput and low latency, and supporting multiple frameworks like TensorFlow, PyTorch, and ONNX.
* Leveraged Seldon Core to transform ML models into production-ready REST/gRPC microservices, achieving optimal deployment efficiency.
* Successfully deployed machine learning models using MLflow, ensuring ease of use, consistency, and adaptability in various production environments.
* Demonstrated proficiency in deploying models to Kubernetes clusters using MLflow, ensuring high scal- ability and resilience in a Kubernetes ecosystem.
* Mastered the end-to-end process of training, packaging, and deploying a linear regression model to a Kubernetes cluster using MLflow, as detailed in the provided tutorials.
* Applied MLflow's comprehensive suite to streamline the model deployment journey, ensuring models were effectively ready for diverse environments, including local, cloud, and Kubernetes clusters.
* Developed custom CUDA kernels for specific deep learning operations, enhancing model performance and efficiency by leveraging the parallel computing capabilities of GPUs.
* Integrated Vector DB with Docker and Kubernetes to store and retrieve large-scale datasets for real- time analytics.
* Utilized AWS SageMaker to train and deploy machine learning models in Docker containers on Kuber- netes clusters for predictive analytics.
* Experienced in creating Vertex AI ML data assets, reusable Azure ML components and validated and successfully ran Vertex AI ML pipelines.
* Designed and implemented scalable and cost-effective cloud architectures using AWS services such as EC2, S3, Lambda, DynamoDB, RDS, AWS Bedrock, SageMaker and others.
* Developed serverless applications using AWS Lambda and API Gateway using JSON as request format to handle dynamic workloads and improve efficiency.
* Implemented CI/CD pipelines using AWS CodePipeline and CodeDeploy to automate build, test, and deployment processes.
* Managed and optimized AWS resources to ensure high availability, scalability, and performance of ap- plications.
* Created a QA system with transformer architectures (e.g., BERT, GPT) based on generative AI using LangChain on AWS Bedrock, optimizing performance by fine-tuning on QA datasets and incorporating attention mechanisms for accurate answer generation for Nike knowledge domain for APLA
* Using generative AI engineered a sentiment analysis system leveraging transformer models (e.g., BERT, RoBERTa, GPT4All) from LangChain, employing transfer learning for task adaptation and evaluating per- formance metrics like accuracy, precision, and recall.

**Bank of America, Charlotte, NC Aug 2021 - Aug 2022**

**Python Developer**

**Responsibilities:**

* Designed and developed data quality validation reconciliation report for Accrual Payments for the pay period and specific currency for Inter Company Loans to detect incorrect payments in multiple curren- cies till date whenever the script is run.
* Corrections ranging from hundreds to millions across multiple Deals across APAC, EMEA and AMRS re- gions found as incorrect payments through developed recon were posted as part of Self Induced Audit Inquiry as part of meeting the financial regulations.
* With help of the developed recon, identified and fixed the bug in payment system of ICL to resolve any such further incorrect payments happening in future. This bug resulted in millions of incorrect pay- ments in multiple currencies over six years from 2016.
* Designed and developed daily run reconciliation for payments and daily accruals so that such issue can be found out on daily basis and at much earlier stage, if for any reason incorrect payments were posted either as part of some job failure in ICL stack or due to any other issues such as missing rate index
* changes etc.
* Developed script to also generate and send automated emails with such Payment and Accrual Recon Reports which are sent to ICL Finance and Tech team daily for review.
* Developed script to delete or sync all Deals and Events within a Book, Portfolio, Group or list of Deals processing parallel on BOFA HPC cluster.
* Developed script for copying ICL Deals and Events parallely on HPC cluster of BoFA on them between From and To no-sql DB env and thus saving multiple days of work taken in copying of Deals from Prod to lower lanes.
* Developed listeners to copy any newly created or updated Hedges as part of storing information about Cash Flow Hedges in No-SQL DB to BigData Topic.
* Developed a job that extrapolates Cash Flow Hedging data over 3 years over 37 datapoints representing the data over monthly periods for three years. And hence meet the updated financial regulations which mandated the Hedges to be plotted at least over 36 monthly datapoints in any case.
* Implemented reinforcement learning algorithms (e.g., Q-learning, Deep Q-Networks) to optimize game strategy in complex environments. Achieved superior performance through exploration-exploitation balance and policy iteration techniques.
* Developed a fraud detection system utilizing supervised learning algorithms (e.g., Random Forest, XG- Boost) to identify fraudulent transactions. Incorporated feature engineering and anomaly detection methods to improve detection accuracy.

**Ford, Dearborn, MI Sep ‘19 - Aug ‘21**

**Python Developer**

**Responsibilities:**

* Automate different workflows, which are initiated manually with Python scripts and UNIX shell scripting. Create, activate and program in Anaconda environment. Develop Test Plan and Strategy for Integration Testing.
* Use Python unit and functional testing modules such as unit test, unittest2, mock, and custom frame- works in-line with Agile Software Development methodologies. Used standard Python Modules e.g. CVS, RobotParser, itertools, pickle, jinja2, lxml for development.
* Develop Sqoop scripts to handle change data capture for processing incremental records between new- ly arrived and existing data in RDBMS tables. Installed Hadoop, Map Reduce, HDFS, AWS and developed multiple MapReduce jobs in PIG and Hive for data cleaning and pre-processing.
* Manage datasets using Panda data frames and MySQL, queried MYSQL database queries from python using Python-MySQL connector and MySQL dB package to retrieve information. Generated Python Django Forms to record data of online users and used PyTest for writing test cases.
* Used Pandas as API to put the data as time series and tabular format for manipulation and retrieval of data. Helped with the migration from the old server to the Jira database (Matching Fields) with Python scripts for transferring and verifying the information.
* Perform troubleshooting, fixed and deployed many Python bug fixes of the two main applications that were the main source of data for both customers and internal customer service team. Generating vari- ous capacity planning reports (graphical) using Python packages like NumPy, matplotlib.
* Build all database mapping classes using Django models and Cassandra. Analyzing various logs that are been generating and predicting/forecasting the next occurrence of an event with various Python li- braries.
* Design and maintain databases using Python and developed Python-based API (RESTful Web Service) using Flask, SQL Alchemy, and PostgreSQL. Develop the workflow and dataflow of SSIS ETL processes to support many different file structures and business processes.
* Manage code versioning with GitHub, Bitbucket and deployment to staging and production servers and implement MVC architecture in developing the web application with the help of the Django framework.
* Use Celery as task queue and RabbitMQ, Redis as a messaging broker to execute asynchronous tasks. Design and manage API system deployment using fast Http server and AmazonAWS architecture.
* Develop remote integration with third party platforms by using RESTful web services and Successful implementation of Apache Spark and Spark Streaming applications for large scale data. Involved in the development of WebServices using SOAP for sending and getting data from the external interface in the
* XML format and integrated HIVE data warehouse for ETL storage of data.
* Used Oracle Advanced Queuing - DBMS AQ for message exchange between Phoenix and external sys- tems. Implemented Spring boot microservices to process the messages into the Kafka cluster setup. Scraping website using Python Beautiful Soup, and then parsed it with XML.
* Used NLTK and Stanford NLP to process text data and created ofline intelligence. Developed a module to build DjangoORM queries that can pre-load data to greatly reduce the number of database queries needed to retrieve the same amount of data.
* Headed and implemented Parts Followup workflow using PySpark that tracks all the necessary informa- tion regarding the movements, usages, availability and forecasts of Parts in Plants and their various Lines, and renders the desired tracking information in a QlikView dashboard.
* Leveraged Hadoop for task scheduling using YARN and Hive data warehouse for ETL storage as part of Parts Followup project with Pyspark.
* Leveraged QlikView script editor to implement optimized data loading and transformation processes, ensuring efficient data retrieval and processing across large datasets that were the output of Pyspark ETL pipeline.
* Utilized QlikView expressions and set analysis to develop intricate calculations and visualizations, en- abling stakeholders to gain deeper insights into parts utilization and forecasting to enable tracking and utilization and forecast of parts across all plants.
* Integrated QlikView extensions and custom objects to extend dashboard functionality and deliver tai- lored user experiences, driving user engagement and adoption.
* Solving the server crashing problem while running huge data with the Alteryx workflow most of the times. Debugged through SPARK UI and arrived at near optimum Spark configurations using Yarn such as partitioning, shufle partitions, no of executers and driver nodes and memory for the project.
* Delivered a robust running workflow using PySpark that runs under 15 mins that processes and tracks all the car parts in different plants and lines of FORD and displays them on dashboard.
* Implemented Kafka producer and consumer applications on Kafka cluster setup with help of Zookeeper. Have knowledge on partition of Kafka messages and setting up the replication factors in Kafka Cluster.
* Implemented Kafka-based solutions for streaming data processing, event-driven architectures, and real- time monitoring of critical business metrics.
* Experienced in real time data from various data sources through Kafka data pipelines and applied vari- ous transformations to normalize the data stored in HDFS Data Lake. Actively involved in developing the methods for Create, Read, Update and Delete (CRUD) in Active Record.
* Architected and implemented real-time data processing solutions using Kafka as the primary data input for the Parts Followup project.
* Designed Kafka data pipelines to ingest and process parts-related data from multiple sources, including manufacturing plants, suppliers, and inventory databases.
* Optimized Kafka cluster configuration for high availability, fault tolerance, and data consistency, ensur- ing reliable and scalable data processing.
* Developed Kafka producer and consumer applications to facilitate data integration and communication between different components of the Parts Followup system.
* Headed and implemented Release Pull Ahead workflow using PySpark, Hadoop and Hive to optimize utilization of Supply Chain Containers and Distribution Centers for Inbound and Outbound logistics.
* Designed and developed a Restful Swagger API using Vue JS for Customers, Administrators and Business Users using for AUTOMAP which compares cars prices and features based on family and model of cars.
* Developed and deployed AUTOMAP micro-services on Kubernetes clusters using Docker containers to ensure scalability and robustness of the application.
* Designed and developed Web APIs with Flask to integrate with different components written in Vue to combine ML algorithms written in Python, to compare and predict price lines and part consumptions.
* Worked on client-server architecture using TCP/IP Sockets & Multi-threading (P-threads and boost threads).
* Python variables are used to grab credentials (Teradata) from a specified folder in a location and gener- ate text file as a log. Quality checks are done during the extraction from Teradata using Python.
* Implemented and modified various SQL queries and Functions, Cursors and Triggers as per the client requirements. Managed code versioning with GitHub, BitBucket,and deployment to staging and pro- duction servers.
* Implemented MVC architecture in developing the web application with the help of the Django frame- work. Used AWS SQS and Redis as a messaging broker to execute asynchronous tasks.
* Designed and managed API system deployment using a fastHTTP server and Amazon AWS architecture. Involved in code reviews using GitHub pull requests, reducing bugs, improving code quality, and in- creasing knowledge sharing.
* Used Docker and Kubernetes to create containers and deploy the Release Pull Ahead project into AWS Server to improve the scalability of the application.
* Designed and developed cloud-based solutions for clients using AWS services and technologies.
* Built and maintained web applications deployed on AWS EC2 instances and managed services such as RDS, ElastiCache, AWS SQS and CloudFront.
* Implemented monitoring and alerting systems using AWS CloudWatch to track application performance and availability.
* Wrote automation scripts using AWS SDKs and CLI to streamline infrastructure provisioning and config- uration management.
* Assisted in migrating on-premises applications to the AWS cloud, ensuring minimal downtime and data integrity.
* Implemented text summarization utilizing transformer architectures such as BERT and T5. Achieved su- perior summarization quality through fine-tuning pre-trained models and extracting key information from large text datasets.
* Developed a NER system using transformer models like BERT, applying token-level classification and CRF techniques for precise entity labeling. Deployed the system for real-time entity extraction tasks.

**Uptake, Chicago, IL Mar ‘19 - Sep ‘19**

**Python Developer**

**Responsibilities:**

* Created Python and Bash tools to increase the efficiency of the retail management application system and operations; data conversion scripts, AMQP/RabbitMQ, REST, JSON, and CRUD scripts for API Inte- gration.
* Extensively worked with Teradata utilities like TPT, Fast Load, Fast Export and BTEQ to export and load data from and to different systems with source systems. Developed Python-based API (RESTful Web Service) to track the events and perform analysis using Django.
* Developed entire frontend and backend modules using Python on Django Web Framework. Worked on several python libraries like Python, NumPy, and Matplotlib and used XML Web Services using SOAP to transfer information to the Credit Monitoring Systems.
* Involved in Using Python, Flask, and Vue JS for the design, development, and deployment of the appli- cation as a pilot project for Uptake for Midwest electric grid.
* Designed a network of web pages, where the user progresses through an application by selecting links, resulting in the next page being transferred to the user and rendered for their use using REST. Used Python-based GUI components for the front-end functionality such as selection criteria.
* Administration of dedicated collocated RHEL 4 machine and configured complex Apache configuration files.
* Implemented and enhanced CRUD operations for the applications using the MVT (Model View Tem- plate) architecture of the Django framework and Python conducting code reviews.
* Set up and maintain CI infrastructure to streamline build process, unit tests, functional tests, and inte- gration tests and artifacts deployments. Developed build and deployment scripts using Ant and Maven as build tools in Jenkins to move from one environment to other environments.
* Analyzed the SQL scripts and designed it by using Spark SQL for faster performance. Experience in writ- ing Sub Queries, Stored Procedures, Triggers, Cursors, and Functions on SQL and PostgreSQL database.
* Build backend security services for Cisco platforms such as web & email security appliances and cloud services, firewall, and next-generation backend intelligence systems.
* Successfully migrated the Django database from SQLite to MySQL with complete data integrity. Respon- sible for transforming design mock-ups to W3C standards compliant HTML pages using HTML, XHTML, CSS.
* Written Spark-Scala scripts, by creating multiple UDF's, spark context, Cassandra SQL context, multiple API's, methods which support data frames, RDD's, data frame Joins, Cassandra table joins and finally write/save the data frames/RDD's to Cassandra database.
* Created a Python/Django based web application using Python scripting for data processing, MySQL for the database, and HTML/CSS/jQuery and High Charts for data visualization of the served pages.
* Successfully migrated the Django database from SQLite to MySQL to PostgreSQL with complete data integrity.

**Oracle India Pvt. Ltd. India Mar ‘14 - Jul ‘16**

**Python Developer**

**Responsibilities:**

* Closely involved in performance evaluation and User Acceptance Test (UAT). Automated the movement, syncing and integration of inventory through creation of Cloud Product Master portal to create services, subscriptions, Stock Keeping Units and dependencies as a part of Oracle offering Cloud Services.
* Worked on formulation and implementation of Oracle Cloud ERP and Oracle Fusion ERP for inventory and MDM modules using JAVA based OAF, Oracle ADF frameworks.
* Reduced the time required – from days to minutes – for approval of quality issues by devising, design- ing and creating multiple workflows and alerts to optimize and automate approval system for various services offered by Oracle Fusion, Cloud Services, Oracle Cloud ERP and Oracle Fusion ERP.
* Improved the accuracy of inventory over 20% by designing and developing JAVA and PL/SQL based Item Validation Tool to maintain correctness and accuracy in inventory module. Simplified complex reporting systems and reduced running time manifolds.
* Developed Intrastat Trading Reporting System that records various types of movements and statistics of inventory across countries in European Union.

**Virtusa Software Services Pvt. Ltd. India Nov ‘12 - Mar ‘14**

**Software Developer**

**Responsibilities:**

* Developed queue based system for recording and tracking various kinds of tickets for Standard Char- tered Bank. Developed multiple models and controllers using core JAVA, Spring and Hibernate frame- works as a part of back-end development for SCB ISIS project.
* Developed rule based expert system using JAVA and XML for insurance approval for TRUVEN Health Analytics. Extensively used UML to develop various use cases, class diagram and sequence diagrams.
* Involved in designing and generating web services using SOAP, WSDL, and UDDI. Developed interactive web application using ExtJS. Developed a web-based reporting system with JSP.
* Developed UI using HTML 5, Bootstrap, jQuery and JSP for interactive cross-browser functionality and complex user interface