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|  | **Kapil Reddy**704-837-8374  |

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| **Summary** |

* 10+ years of experience in Analysis, Design, Development, Management, and Implementation of various standalone and client-server enterprise applications.
* Experienced in Python programming in application development over several years.
* Developed web-based applications using Python, Flask, XML, CSS, HTML.
* Experienced with Design, code, debug operations, reporting, data analysis and web applications utilising Python.
* Developed views and templates with Python and Django view controller and templating language to create a user-friendly website interface.
* Extensive experience automating repetitive tasks and processes through the creation and optimization of shell scripts, enhancing operational efficiency.
* Experienced in relational databases like Oracle, SQLite, PostgreSQL, Redshift, and MySQL databases.
* Experienced in project deployment using Jenkins.
* Developed and Maintained Cloud formation scripts and automated the provision of AWS resources, which include EC2, S3, RDS.
* Developed and implemented core Fast API services using Python with spark.
* Experienced in building frameworks and automating complex workflows using Python for Test Automation.
* Developed Python automation scripts to facilitate quality testing. Experienced in full SDLC starting from Design and Development, Testing, and documenting the entire life cycle using various methodologies.
* Good working Experience in Agile (SCRUM) and waterfall methodologies with high quality deliverables delivered on-time.
* Proficient in geospatial data processing using the Geospatial Data Abstraction Library (GDAL) for tasks such as data translation, transformation, and analysis.
* Proficient in designing, deploying, and managing containerized applications using Kubernetes.
* Experienced in creating Kubernetes clusters, managing pod lifecycles, and scaling applications horizontally.
* Wrote Python modules to extract/load asset data from the MySQL source databases. Good working experience in using version control systems like Git and Bitbucket.
* Proven experience in implementing CI/CD pipelines using tools like Jenkins, GitLab CI/CD, or Azure DevOps.
* Proficient in automating infrastructure provisioning and configuration using Infrastructure as Code (IaC) tools like Terraform or CloudFormation.
* Expertise in designing and implementing globally distributed NoSQL databases using Azure Cosmos DB.
* Proficient in selecting appropriate consistency models and partitioning strategies to optimize performance.
* Experienced in working with various Python IDE's like PyCharm, VS Code, Spyder etc.

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| **Skills** |

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| * Programming Languages: Python, C, C++, Shell scripting
* Operating Systems: Windows, Mac OS, UNIX and Linux, Debian, Ubuntu
* Web Technologies: HTML/HTML5, CSS/CSS3, XML, JSON, and CSS Bootstrap
* Frameworks: Django, Flask, Jenkins
* Python Libraries: NumPy, Matplotlib, HTTPLib2, Urllib2, Panda, ­
 | * Cloud Services: Amazon Web services
* Database: MySQL, Sqlite3, PostgreSQL, Redis, and MongoDB
* Deployment tools: Amazon EC2, Jenkins, AWS, nginx, Apache
* Version Control Systems: CVS, SVN, Git and GitHub
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| **Experience:** |

Python/ AWS Developer / Huntington Bank – Austin, TX *11/2019 - Current*

* Worked on maintaining a framework written in Python to process data on AWS EMR
* Worked on writing quality checks for the processed data.
* Wrote SQL, PySpark queries to make sure the retrieved data is adhering to the schema and has no discrepancies.
* Worked on building a framework for data processing on AWSGlue, to increase speed, efficiency and decrease costs.
* Extensive experience in designing and implementing RESTful APIs using FastAPI to create scalable and efficient web applications.
* Skillful in utilizing Helm for package management and Kubernetes manifests for defining resources.
* Demonstrated ability to configure and manage networking, load balancing, and storage solutions within Kubernetes.
* Utilized thePythonUnit test framework, for allPythonapplications and used Django Database Fast APIs to access
* database objects.
* Developed and optimized machine learning algorithms and models for various applications, including classification, regression, clustering, and natural language processing (NLP), utilizing frameworks such as TensorFlow, Scikit-learn, and PyTorch.
* Designed and implemented CI/CD pipelines to automate software delivery processes, utilizing Jenkins, GitLab CI/CD, or AWS CodePipeline for building, testing, and deploying applications.
* Proficient in using Pydantic models with FastAPI to define API request and response structures, ensuring data validation and documentation generation.
* Hands-on experience with Kubernetes monitoring and logging tools, such as Prometheus and Grafana.
* Used AWS Glue to run ETL jobs, both Spark and non-Spark, and crawlers to create databases.
* Wrote Shell and Python scripts to automate loading data and kicking off some parts of the data pipeline.
* Wrote SQL, PySpark queries to perform checks on the retrieved data.
* Worked on AWS Athena database to write SQL queries and generate reports for business customers.
* Ran AWS Step Functions, troubleshoot and resolve issues with the workflow.
* Processed data using AWS EMR and performed troubleshooting using PySpark.
* Generated dataset reports with HTML, CSS to review the quality of the processed data.
* Debugging the failure issues by capturing the array and register dumps using Python scripts, traces and performing several experiments by interacting with the design team.
* Developed end-to-end AI applications and systems, integrating machine learning models into production environments using containerization (e.g., Docker) and orchestration platforms (e.g., Kubernetes) for deployment and scaling.
* Developed data structures, xml parsing using Python.
* Proficient in containerization technologies such as Docker and container orchestration platforms like Kubernetes, managing containerized applications for scalability and resilience.
* Developed and designed Python based Fast API (RESTful Web Service) to interact with company&#39;s website.
* Wrote scripts in Python for extracting data from HTML file.
* Hands-on knowledge of source code management, branching strategies, and version control using Git.
* Expertise in containerization using Docker, along with orchestrating containers using Kubernetes.
* Skilled in designing and maintaining monitoring and alerting systems to ensure application and infrastructure health.
* Utilized FastAPI's validation features for automatic request and response data validation, serialization, and error handling.
* Extensive experience with Open Geospatial Consortium (OGC) standards, including 3D Tiles, Mapbox Vector Tiles (MVT), Web Coverage Service (WCS), Web Feature Service (WFS), Web Map Service (WMS), and Web Map Tile Service (WMTS).
* Skilled in creating, querying, and optimizing SQL, MongoDB, Cassandra, or Gremlin API-based data models.
* Hands-on experience with configuring and fine-tuning Cosmos DB's throughput, indexing, and data retention policies.
* Designed and implemented data pipelines on Amazon Web Services (AWS), utilizing AWS Data Pipeline to automate and orchestrate geospatial data workflows.
* Ability to implement multi-region failover and disaster recovery strategies for high availability.
* Wrapper developed in Python for instantiating multi-threaded application and running with other applications.

Python Developer / State Farm - Bloomington, IL *04/2017 - 11/2019*

* Develop, implement, deploy, and maintain cloud-based applications.
* Used Python, REST, Flask, Spark to develop web-based applications, tools, and apply data transformations.
* Configured web servers and application servers using nginx and uWSGI to serve web applications.
* Developed command-line tools using Python and web-based applications with Flask, XML, CSS, HTML
* Wrote well-documented code and packaged it.
* Designed and implemented pipelines for data preprocessing, model training, and evaluation, incorporating techniques such as cross-validation, hyperparameter tuning, and model selection to optimize performance.
* Designed and developed APIs to share data with cross functional teams using Hug and Fast API frameworks.
* Followed OOP concepts and created reusable chunks of code.
* Built admin dashboards using Flask to manage users and content posted on web applications.
* Worked on Python unit test framework, for applications and tools and Pytest plugins for API/integration testing.
* Used relational databases like SQLite, AWS Redshift, PostgreSQL
* Developed and Maintained Cloud Formation scripts and automated the provision of AWS resources, which include EC2, S3, ECS, CloudFront, IAM, CloudFormation.
* Leveraged big data technologies such as Apache Spark and Hadoop for scalable and distributed data processing, enabling analysis of large datasets and training of complex AI models.
* Proficient in designing and implementing effective data models in Amazon Redshift, including defining appropriate schemas, tables, and relationships for optimal query performance.
* Proficient in continuous integration and deployment using Kubernetes, ensuring smooth application updates.
* Deployed docker based applications written in Python/Flask to AWS ECS, a container orchestration service.
* Developed Python automation scripts to facilitate quality testing.
* Knowledge of Cosmos DB's integration with Azure services for data processing and analytics.
* Worked on Jenkins to manage content on Looker with multiple instances.
* Built user dashboards on Looker to provide data analyses, insights using charts and graphs.
* Performed data transformations with Apache Spark (PySpark) on Databricks to write to AWS S3.
* Used AWS Glue and Redshift Spectrum for ETL and querying semi-structured data from S3 respectively.
* Monitored database performance with the help of AWSCloudWatch and communicated with users to consume resources optimally.
* Followed Agile (SCRUM) methodology with high quality deliverables delivered on-time.

Python Developer / OBXtek - McLean, VA *06/2016 - 03/2017*

* Wrote Python routines to log into the websites and fetch data for selected options.
* Used Python modules such as requests, urllib, urllib2 for web crawling.
* Used other packages such as beautiful soup 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 dimension from digital images.
* Web-services backend development using Python (CherryPy, Django, SQLAlchemy).
* Participated in developing the company internal framework on Python.
* This framework became a basement for the quick service 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, Git, REST API, MongoDB, IntelliJ IDEA.
* Designed and setting up of the environment of Mongo dB with shards and replica sets.
* Private VPN using Ubuntu, Python, Django, Postgres, Redis, Bootstrap, jQuery, Mongo, Fabric, Git, Tenjin, and Selenium.
* Strong background in collaborating with cross-functional teams to streamline development, testing, and deployment processes.
* Performed QA testing on the application.
* Developed approaches for improving NLP pipeline.
* Created custom VB scripts in repackaging applications as needed.
* Managed and reviewed Hadoop log file and worked in analysing SQL scripts and designed the solution for the process using PySpark.
* Developed a 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.
* Excellent knowledge with distributed storages (HDFS) and distributed processing (MapReduce, Yarn).
* Developed automated testing framework for command-line based tests on Linux.
* Oriented Perl and for selenium-based tests using Python.
* Created database using MySQL, wrote several queries to extract data from database.
* Strong troubleshooting skills in identifying and resolving issues within Kubernetes environments.
* Setup automated cron jobs to upload data into database, generate graphs, bar charts, charts to wiki, and backup the databases.

Python Developer / State Farm - Bloomington, IL *03/2015 - 05/2016*

* Responsible for gathering requirements, system analysis, design, development, testing, and deployment.
* Participated in the complete SDLC process.
* Wrote Python modules to extract/load asset data from the MySQL source database.
* Designed and implemented a dedicated MYSQL database server to drive the web apps and report on daily progress.
* Developed views and templates with Python and Django view controllers and templating language to create a user-friendly website interface.
* Used Django framework for application development.
* Built the application that can download, edit, archive, and publish the files from cloud storage.
* Developed user interface using CSS, HTML, JavaScript.
* Created most important Business Rules which are useful for the scope of project and needs of customers.
* Improved performance by using a more modularized approach and using more in-built methods.
* Hands-on experience on SCM tools like GIT, containers like Docker and deployed the project into Jenkins using the GIT version control system.
* Developed a fully automated continuous integration system using Git, Jenkins, MySQL, and custom tools developed in Python.
* Wrote scripts to automate menial tasks.
* Wrote unit test cases for testing tools.
* Designed and configured database and back-end applications and programs.
* Performed research to explore and identify new technological platforms.
* Familiarity with agile methodologies, continuous improvement, and fostering a culture of collaboration between development and operations teams.
* Collaborated with internal teams to convert end user feedback into meaningful and improved solutions.

Python Developer / Genems systems - India *04/2013 - 12/2013*

* Developed the application using the Java I/O functionalities to display the output using the Stream-Readers both the Input and the Output Features.
* 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 Flask and Django Web Framework.
* Designed and developed the data management systems using MySQL databases.
* Wrote Python Scripts to parse the JSON data and load into the database.
* Utilized the existing Python and Django modules and rewritten to deliver data in required formats.
* Experienced in writing indexes, views, constraints, stored procedures, triggers, cursors and user defined functions or subroutines in MySQL.
* Responsible for Debugging and troubleshooting the application.
* Used beautiful Soup modules, Pandas for data analysis and web scrapping.
* Developed and worked on the inventory management system, demand forecasting visualization and data analysis.
* Utilized Subversion control tool to coordinate teamwork.