GAYATHRI

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Python Developer

Professional Summary:

- Accomplished **Sr. Python Developer & Data Engineer** with over **8 years of experience** in designing, developing, and implementing **enterprise-scale applications, ETL pipelines, and cloud/mainframe integrations**. Adept at turning raw data into actionable insights through **automation, workflow orchestration, and performance optimization**, with proven success in delivering **scalable, reliable, and production-ready solutions**.

- Skilled in building **data pipelines and workflows** using **Python, PySpark, SQL, Pandas, NumPy, and Airflow**, including automated DAGs to improve efficiency and reduce manual effort.

- Strong expertise in **microservices architecture, REST APIs, and event-driven systems** using **Kafka**, integrated into enterprise systems with robust **CI/CD pipelines** (Jenkins, Git, Docker, Kubernetes, GitLab, Flyway).

- Experienced in financial data systems, including **stress testing (14A), Fed edit checks, Bluebook/Redbook validations**, and compliance-driven pipelines with **Snowflake and Python**.

- Knowledge of **baseline accounting concepts** and alignment of upstream financial systems with downstream reporting tools (OneStream/Hyperion/EPM).

- Hands-on experience across major **cloud platforms** – **AWS (EC2, S3, EKS, IAM, VPC, Glue, Lambda, RDS, CloudWatch)**, **Azure (ADF, Databricks, Blob Storage)**, and **GCP (Big Query, Dataflow, Vertex AI, Cloud Functions)** – for scalable data engineering and ML/AI deployments.

- Proficient with **RDBMS (PostgreSQL, Oracle, MySQL, SQL Server)** and **NoSQL (MongoDB, Cassandra)**, along with advanced SQL (queries, stored procedures, triggers, indexing, optimization).

- Experienced in **Mainframe environments**, including **z/OS USS, DB2 for z/OS (SQL tuning, stored procedures, utilities such as REORG, RUNSTATS, LOAD/UNLOAD), JCL scripting (PROCs, GDGs, condition codes)**, and enterprise schedulers (**Control-M, CA-7**).

- Automated mainframe workflows with **Zowe CLI, SDSF, and z/OSMF REST APIs**, while implementing **observability through Splunk/ELK** and ensuring compliance with **RACF/Top Secret/ACF2**.

- **Experienced in end-to-end data lifecycle management**, from ingestion and transformation to governance, quality assurance, and secure delivery, ensuring compliance with **PII, PCI, and SOX standards**.

- Background in **machine learning and AI**, including model development and deployment with **TensorFlow, PyTorch, MLflow**, and integration into cloud-based platforms for predictive analytics.

- **Proven track record of modernizing legacy systems** by migrating monolithic and COBOL/JCL-based processes into **Python-driven, cloud-ready, and event-based architectures**, reducing cost and improving efficiency.

- Experienced in **web frameworks** like **Django, Flask, ReactJS, and AngularJS**, developing **secure and scalable web applications** using MVC/MVW design patterns.

- Strong understanding of **software development lifecycle (SDLC)**, Agile methodologies, unit/integration testing (PyTest, Behave, Cucumber), and best practices in code quality, error handling, and performance tuning.

- Recognized for **problem-solving, adaptability, and collaboration**, with excellent **communication and leadership skills** to mentor junior engineers and work effectively with cross-functional teams.

- Highly motivated, dedicated, quick learner and have proven ability to build and manage a team and work individually.

- Strong analytical and problem-solving skills, always striving for new knowledge. A person with multi-tasking and organizational skills and high ethical standards.
- Excellent communication and interpersonal skills, ability to work independently as well as part of an integrated team.

Technical Skills:

- ✓ **Languages:** Python 3.x/2.7, SQL
- ✓ **Frameworks:** Django, Flask, ReactJS, AngularJS, Node.js
- ✓ **Data Engineering & Big Data:** PySpark, ETL pipelines, Airflow, Data Lake ingestion, batch & streaming workflows
- ✓ **Event-driven Systems:** Kafka (real-time data streaming), Event-based architecture design
- ✓ **Cloud Platforms:**
- ✓ **AWS:** EC2, S3, EKS (Kubernetes), IAM, VPC, Lambda, Glue, RDS, CloudWatch
- ✓ **Azure:** Data Factory, Databricks, Blob Storage
- ✓ **GCP:** BigQuery, Dataflow, Vertex AI, Cloud Functions
- ✓ **Databases:** RDBMS (MySQL, PostgreSQL, Oracle, MS SQL), NoSQL (MongoDB, Cassandra), Snowflake
- ✓ **CI/CD & DevOps:** Jenkins, Git/GitHub, Docker, Kubernetes, Flyway (DB migrations)
- ✓ **Machine Learning/AI Tools:** TensorFlow, PyTorch, MLflow, BigQuery ML
- ✓ **Mainframe:** z/OS USS, TSO/ISPF, SDSF, JCL, DB2 for z/OS, Control-M, CA-7, Zowe CLI, z/OSMF APIs
- ✓ **Financial/Regulatory:** Stress testing (14A), Fed edit checks, Bluebook/Redbook validations, baseline accounting knowledge
- ✓ **Other Tools:** Pandas, NumPy, SciPy, matplotlib, Jira, Agile methodology
- ✓ **Web Services** : SOAP, REST, XML
- ✓ **Methodologies** : Agile, Scrum
- ✓ **Operating Systems** :Window, UNIX, Linux

Professional Experience:
Truist financial, Charlotte, NC   **Aug 2024 – Present**
Role: Sr. Python Developer
Responsibilities:
- Gathered requirements, performed system analysis, design, development, testing, and deployment across full SDLC.

- Designed and implemented high-performance **ETL pipelines** for structured/unstructured data into **AWS Data Lake** environments.

- Processed and analyzed multi-million row datasets using **Python (Pandas, NumPy, SciPy, PyTables, Matplotlib)** and **SQL**, optimizing workflows for speed and scalability.

- Parsed, cleansed, and consolidated data from **Excel, CSV, text files**, and 3rd-party APIs for advanced analytics.

- Developed automated unit and regression testing frameworks using **PyUnit** to ensure code stability.

- Built robust **Python–DB2 integration on z/OS** and optimized **JCL scripts** with restart/recovery logic, integrated with **Control-M**.

- Automated job submission/monitoring using **SDSF, Zowe CLI, z/OSMF REST APIs**, improving reliability.

- Developed Python-based cron jobs (**ldos-cron**) and monitoring/notification tools for ETL workflows.

- Rewrote **Java applications in Python**, implemented business logic for planning/tracking, and generated **Django forms** for user data capture.

- Built **frontend and backend modules** using **Python Django**, **ReactJS/Redux**, **Angular.js**, **Bootstrap**, **HTML5/CSS3**, and integrated with **REST APIs**, **JSON**, and AJAX-driven applications.

- Designed and orchestrated **Apache Airflow DAGs**, integrating with **PySpark, SQL, S3, EC2**, and implementing error handling, retries, and SLA monitoring.

- Built large-scale **PySpark dataframes** on **AWS EC2** and aggregated multiple sources for analytics and product insights.

- Applied **ML observability** using **MLflow** to monitor **data drift** and **model drift** in production.

- Developed and updated Python and SQL code for **financial reporting and compliance** (14A stress testing, Fed edit checks, Bluebook/Redbook validations).

- Implemented ETL workflows in **Snowflake** to support downstream financial modeling and reporting.

- Worked with **PHP & PHP-FPM**, **nginx**, **Docker**, **Jenkins**, **CI/CD pipelines**, and containerized deployments.

- Used **Node.js**, **Webpack**, **Grunt**, and **PyQuery** for web automation, frontend builds, and DOM parsing.

- Debugged web/Flash objects using **Fiddler2, Wireshark, and live HTTP headers**.

- Managed version control and collaboration via **Git/GitHub** and Agile project management using **JIRA**.

- Supported users by troubleshooting software issues, fixing bugs, and validating ETL outputs with **SQL scripts**.

Environment: Python 3.x, Django, PySpark, Pandas, NumPy, PyUnit, AWS (EC2, S3, EKS, IAM, VPC, RDS, Glue, CloudWatch), Airflow, REST, JSON, Kafka, Docker, Kubernetes, Jenkins, Git/GitHub, Flyway, SQL, DB2 for z/OS, JCL (PROCs, GDGs, condition codes), SDSF, TSO/ISPF, Zowe CLI, z/OSMF REST APIs, Control-M, CA-7, Splunk, ELK, RACF, Agile, Jira, Windows, Linux

Humana, Louisville, KY   **Feb 2023 – Jul 2024**

Role: Python Developer
Responsibilities:
- Involved in building database Model, APIs and Views utilizing Python, in order to build an interactive web solution.

- Built and maintained **end-to-end ETL** workflows, integrating multiple structured/unstructured sources into enterprise **Data Lake**.
- Leveraged **Pandas** and **NumPy** for cleaning, transforming, and aggregating large datasets for analytics and reporting.
- Optimized SQL queries and batch processing pipelines to handle large-scale data loads efficiently.
- Created reusable scripts to parse Excel, CSV, and text data formats for ingestion into analytics platforms.
- Implemented unit/regression testing and error handling to ensure ETL reliability and data integrity.
- Developed tools using Python, **Shell scripting**, **XML** to automate some of the menial tasks.
- Developed Business Logic using Python on Django Web Framework.
- Carried out various mathematical operations for calculation purpose using python libraries.
- Designed and managed API system deployment using fast http server.
- Applied **supervised ML models** to analyze customer behavior and improve predictive insights.

- Worked with **feature engineering** workflows using Pandas, NumPy, and scikit-learn.
- Developed views and templates with Python and Django's view controller and templating language to create a user-friendly website interface.
- Worked on Python **Open stack API's**.
- Using **Pandas, NumPy, Feature Tools, Missing, and SciPy packages** to clean, explore and manipulate data to perform feature engineering.
- Used **Python Plotly, Numpy** library to visualize data point using interactive charts. Designed data visualization to present current impact and growth.
- Using **Django** evolution and manual SQL modifications was able to modify Django models while retaining all data, while site was in production mode.
- Involved in building database Model, APIs and Views utilizing Python in order to build an interactive web based solution.
- Involved in creating a **reusable component** using **ReactJS** for DOM manipulation.
- Worked with **JSON** based **REST** Web services.
- Creating unit test/regression test framework for working/new code.
- Using **Subversion version control** tool to coordinate team-development.
- Developed SQL Queries, Stored Procedures, and Triggers Using **Oracle, SQL and PL/SQL**.
- Designed and developed the UI of the website using **HTML5, XHTML, AJAX, CSS3 and JavaScript**.
- Closely worked with application using **ReactJS and Node.js** libraries NPM, gulp directories to generate desired view and flux to route the URLs properly.
- Utilized Agile process and **JIRA** issue management to track sprint cycles.
- Used **GitHub** for version control.
- Created PyUnit test cases for unit testing.
- Performed testing using Django's Test Module.
- Used data types like dictionaries, tuples and object-oriented concepts based inheritance features for making complex algorithms of networks.
- Managed large datasets using Panda data frames and MySQL.
- Created Data tables utilizing **PyQt** to display customer and policy information and add, delete, update customer records.
- Developed views and templates with Python and Django's view controller and templating language to created user-friendly website interface
- Using Subversion version control tool to coordinate team-development.
- Responsible for debugging and troubleshooting the web application.

Environment: Python 3.x, Django, JavaScript, JQuery, JSON, DOJO, Bootstrap, Node.js, Angular.js, HTML5, DHTML, AJAX, CSS3, Open Stack API, Pandas, ANT, Jenkins, JIRA, Agile, SQL, Windows.

Lowe's, Mooresville, NC   **Nov 2021 – Jan 2023**
Role: Python Developer
Responsibilities:
- Participated in the development of application architecture and blueprints to define application components, platforms, interfaces and development tools.
- Updated site with **Python, Django and SQL**.
- Developed custom reports using **HTML, Python and MySQL**.
- Developed monitoring and notification tools using Python.
- Designed and developed the UI of the website using **HTML5, XHTML, AJAX, CSS3 and JavaScript**.
- Developed views and templates with Python and Django's view controller and templating language to create a user-friendly website interface.

- Used Pandas package to retrieve and analyze data.
- Worked on development of **SQL** and stored procedures on **MYSQL**.
- Created backend database T-SQL stored procedures. Created and updated complex views and stored procedures in **MySQL**.

- Built Airflow DAGs to **automate batch workflows** for sales and inventory reporting pipelines.
- Integrated Airflow with **MySQL and Pandas-based scripts** for analytics and operational dashboards.
- Monitored DAGs using **Airflow UI and alerts**, ensuring proactive resolution of pipeline issues.
- Exported/Imported data between different data sources using **SQL Server** Management Studio.
- Created a Git repository and added the project to **GitHub**.
- Utilized Agile process and JIRA issue management to track sprint cycles.
- Participated in multiple sprint cycles, addressing requirements for **UI development**.

Environment: Python 2.7, Django, Pandas, HTML5, CSS3, AJAX, JavaScript, GitHub, MySQL, Apache Web Server, Linux.

Marathon Petroleum Corporation, Findlay, OH   **Feb 2020 – Oct 2021**
Python Developer
Responsibilities:
- Followed **Agile** Methodology - Involved in building database Model, APIs and Views utilizing Python, in order to build an interactive web-based solution.
- Developed views and templates using Python and created a user-friendly website interface using **Django's view controller** and template language.
- Have used Python libraries like **NumPy/SciPy**, **Pandas** for market analysis and done some machine learning using Python.
- Worked on converting **Hive/SQL** queries into Spark transformations using **Spark RDDs, Python**, and **OOP** with Python. Worked on developing and executing shell scripts to automate the jobs.
- Designed, developed, implemented, and maintained solutions for using **Docker, Jenkins, Git**, and **Puppet** for Microservices and continuous deployment.
- Involved in Python OOD code for quality, logging, monitoring, and debugging code optimization.
- Wrote Python modules to view and connect the **Apache Cassandra** instance.

- Built Airflow DAGs to **automate batch workflows** for sales and inventory reporting pipelines.
- Integrated Airflow with **MySQL and Pandas-based scripts** for analytics and operational dashboards.
- Monitored DAGs using **Airflow UI and alerts**, ensuring proactive resolution of pipeline issues.
- Implemented user interface guidelines and standards throughout the development and maintenance of the website using the **HTML, CSS, JavaScript, Bootstrap and JQuery**.
- Recorded the online users' data using Python Django forms and implemented test case using Pytest.
- Successfully migrated the Django database from **SQLite** to **MySQL** to **PostgreSQL** with complete data integrity and designed, developed and deployed CSV Parsing using the big data approach on **AWS EC2.**
- Used PyQuery for selecting particular DOM elements when parsing **HTML**.
- Associated with development of Web Services using SOAP for sending and getting data from the external interface in the XML format.
- Used **Git version** control system for collaborating with teammates and maintaining code versions.
- Used **Jira** to manage workflow and track progress.
- 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.

Environment: Python, Django, HTML, PyQt, PyUnit, JSON, AWS, PyQuery, GitHub, DOM, REST, SQL, Agile and Windows.

Prudent Info tech - Hyderabad, Telangana   **Sep 2017 – Nov 2019**
Role: Python Developer
Responsibilities:

- Responsible for analyzing various cross-functional, multi-platform applications systems enforcing python, best practices and provide guidance in making long term architectural design decisions.
- Designed and developed Use-Case Diagrams, Class Diagrams and Object Diagrams using UML Rational Rose for **OOA/OOD** techniques.
- Debugging Software for Bugs.
- Generated property list for every application dynamically using Python.
- Developed internal auxiliary web apps using Python Flask framework with **CSS3 / HTML5 framework**.
- Implemented Test Driven Development (TDD) strategy for the project.
- Handled all the client-side validation using **JavaScript**.
- Developed Python batch processors to consume and produce various feeds.
- Responsible for search engine optimization to improve the visibility of the website.
- Responsible for debugging the project monitored on **JIRA (Agile)**.
- Used Python and Django to interface with the **jQuery UI** and manage the storage and deletion of content.
- Built development environment with **JIRA/Git**.
- Involved in entire lifecycle of the projects including Design, Development, and Deployment, Testing and Implementation and support.

Environment: Python, Django, HTML5, CSS3, JQuery, Jira, PL/SQL, Oracle, Linux and Windows.