**RACHANA VALLAPALLI**

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**PROFESSIONAL SUMMARY**

Results-driven Software Engineer and Quality Engineering Analyst with a proven ability to design, develop, and automate solutions for data processing, API testing, and performance monitoring. Adept in Python, MySQL, Java, Power BI, and Tableau, with a strong background in quality assurance, automation, and cloud deployment. Skilled in optimizing data workflows, streamlining testing processes, and improving system reliability. Seeking opportunities to apply analytical and problem-solving skills to develop innovative software solutions.

**TECHNICAL SKILLS**

* Programming Languages: Python, Java, SQL, JavaScript
* Databases: MySQL, PostgreSQL, SQLite, Redis
* Testing & Automation: Pytest, Unittest, Selenium, JMeter
* Data Analysis & Visualization: Pandas, NumPy, Matplotlib, Power BI, Tableau
* Cloud & DevOps: AWS, GitHub, Docker, Kafka
* Tools & Frameworks: Flask, Django, Celery, OpenPyXL, BeautifulSoup, NLTK, Spacy
* Soft Skills: Problem-Solving, Team Collaboration, Agile Methodologies

**PROFESSIONAL EXPERIENCE**

**Quality Engineering Analyst |** **Binare IT Solutions | 07/2022 – 12/202**3

* Developed Python automation scripts for efficient API log extraction using regular expressions (re) and text parsing techniques.
* Automated the extraction of API details from Excel files using pandas and OpenPyXL, improving data processing accuracy and reducing manual effort.
* Diagnosed and resolved Python script issues, implementing logging, exception handling, and debugging techniques to optimize code performance.
* Created automated test scripts with Pytest and Unittest to ensure robust performance and usability testing.
* Processed streamed data with Kafka Streams to analyze execution time, failure rates, and system performance.
* Improved real-time data querying using Redis for structured data storage and efficient retrieval.

**Software Developer | Vispro Soft Tech Solutions | 03/2021 - 04/2022**

* Implemented data processing pipelines using NumPy and Pandas, improving analysis efficiency and accuracy.
* Automated web scraping with Scrapy and BeautifulSoup to extract, clean, and structure large datasets.
* Built testing frameworks using Pytest and Unittest, reducing defect resolution time by 30%.
* Developed real-time monitoring dashboards in Tableau to track test execution and performance metrics.
* Suggested and implemented Kafka for real-time data processing, optimizing large-scale data pipelines.

**Software Engineer |** **Portfoliss Solutions | 09/2019 - 02/2021**

* Designed NLP-based algorithms using NLTK and Spacy to automate document parsing and keyword extraction.
* Extracted structured data from Wikipedia and multiple sources, organizing content into Excel reports via OpenPyXL.
* Developed analytics dashboards in Insis Suite to improve operational efficiency in manufacturing industries.

**Python Developer |** **Value SoftTech Solutions | 06/2016 - 08/2019**

* Built and deployed Flask-based applications, including a to-do list and expense tracker with CRUD operations.
* Designed a MySQL-based marketing lead database, integrating data from multiple digital sources.
* Wrote and maintained unit tests using Test-Driven Development (TDD) principles to ensure software quality.

**EDUCATION**

* Master’s in Information ScienceUniversity of New Haven | Spring 2024 – Summer 2025
* Bachelor of Technology in Information TechnologyGandhi Institute of Technology and Management | 2012 – 2016

**CERTIFICATIONS**

* AWS Certified Solutions Architect (In Progress)
* Tableau Desktop Specialist
* Python for Data Science (Coursera)

**PROJECTS & ACHIEVEMENTS**

* Developed a Corporate Employee Performance Management System with real-time analytics, using Flask, PostgreSQL, and Tableau.
* Automated API data extraction workflows, reducing processing time by 40%.
* Designed interactive Power BI dashboards for performance monitoring and business insights.