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/SUMMARY

- As a senior software engineer, my responsibilities include back-end development using Python and various frameworks like Flask and FastAPI for REST APIs. I have previous experience as a data engineer, working with data processing and ETL using tools like Informatica, Netezza, Hadoop, Hive, and PySpark.
- I am experienced with multiple databases like Postgres, MySQL, MS SQL, Oracle and SQL and Stored Procedures. Worked on various flavors of Unix/Linux systems. Additionally, I have experience working with scheduling tools like Control M and Apache Airflow.
- I have worked with various AWS services such as S3, EC2, ECS, EKS, Lambda, DynamoDB, TimestreamDB, and Redshift, and Azure services like blob storage, virtual machines, autoscaling, and Azure Databricks.
- I have experience with Python libraries like SQLAlchemy, Pydantic, and Alembic, and I have worked with Docker, Docker-compose, and Kubernetes.
- Containerizing applications with Docker, Docker Compose and working with Kubernetes for orchestration.
- Extensive Knowledge on Object Oriented Programming, Python and working-level knowledge on Machine learning.
- I have experience optimizing database queries for performance, and I work collaboratively with teams, dividing tasks as needed
- Experience in building APIs and data processing pipelines using Flask, Spark and Airflow.
- Experience in creating data pipelines which handles huge amounts of data using Hive, spark and schedule them using control-M.
- Experience with PEP coding convention for making code more understandable and readable.
- Utilizing devops tools such as Azure DevOps, Jenkins, JIRA, and Zoho to support the development and deployment processes.
- Designed and implemented large scale business critical systems using Object oriented design and Programming concepts.

/EDUCATION

- B.Tech in Computer Science and Engineering - Koneru Lakshmaiah College of Engineering, Guntur, India. [2006-2010]

/TECHNICAL-SKILLS

Programming/scripting Languages	Python, Java, SQL, Shell Scripting
Databases/Data Warehouse	PostgreSQL, IBM Netezza, Hive, MySQL, MS-SQL, Oracle, SQLite, Cassandra, MongoDB, DynamoDB, Timestream
Data Engineering	Pyspark, Airflow, Pandas
Web Development	Flask, FastAPI, SQLAlchemy, Alembic, Swagger, OpenAPI, Docker, Docker-Compose, RESTful, Django, DRF, Jinja, html, CSS, Java Script
Tools	GIT, Jira, Postman, PgAdmin, MySQL Workbench, VS Code, PyCharm, Azure data explorer, Azure Devops, DBeaver, CVS, Codeship, SendGrid, CI/CD: Jenkins, CodeShip
Python Modules	Marshmallow, Pydantic, SQLAlchemy, Flask Restful, Pandas, Unittest, Pytest, Boto3, Flask bcrypt, black.

Amazon Web Services(AWS)	S3, RDS , EC2, SQS, ECS, IAM, Cloud Watch, Fargate, Timestream, Dynamodb
Azure	Blob storage, KeyVault, Virtual Machines, Auto Scaling, Azure SQL Database.

/PROFESSIONAL-EXPERIENCE

Syngenta, Durham, NC, remote   **Sept 2022 - Current**
Role: Senior Software Engineer
Description: Syngenta is a global, science-based ag-tech company made up of Crop Protection and Seeds business units. Worked on APIs for Automatic Processing Lines for seed processing using FastAPI, Timestream and DynamoDB. Deployed the APIs using the AKS
Responsibilities:
- Developing and implementing backend systems using Python, FastAPI, and Pydantic to create scalable and high-performance APIs that can handle large volumes of traffic.
- Designing and implementing database schemas using SQLAlchemy and NoSQL databases like DynamoDB and TimestreamDB to store and retrieve data efficiently.
- Containerizing the services using Docker and deploying them using EKS (Elastic Kubernetes Service) to ensure high availability and fault tolerance.
- Collaborating with the team to plan and execute sprint planning to deliver features within the specified timeline.
- Using Boto3 libraries to interact with AWS services like DynamoDB, S3, and TimestreamDB to access data and perform operations on it.
- Used grafana to create dashboards for monitoring application and AWS resource metrics
- Writing unit tests using Pytest to ensure that the backend systems are working as expected and there are no regressions.
- Setting up DevOps pipelines using Jenkins to automate the build, test, and deployment process and ensure continuous integration and delivery.
- Written docker, docker-compose and kubernetes configurations using YAML

Environment: Python, FastAPI, Pydantic, YAML, React, Grafana, Postgres, REST, Docker, GIT, AWS AKS, SQLAlchemy, DynamoDB, TimestreamDB.

T-MOBILE, Kansas City, remote   **Feb 2022 - Aug 2022**
Role: Senior Software Engineer
Description: T-Mobile US provides wireless voice, messaging, and data services in the United States. It provided IVR support to the customers. For supporting IVR, there are many internal applications which support IVR systems. Created application and APIs to handle multiple configuration files using generic APIs, and added support for users to upload the audio files into a common git repository.
Responsibilities:
- Writing APIs using Flask Framework with RestX and unit test cases using Pytest.
- Integrating with MySQL databases and other data sources to ensure data integrity and accuracy.
- Containerizing the developed services using Docker and deploying them using EKS to ensure scalability and high availability of the applications.
- Participating in sprint planning sessions with the rest of the team to prioritize features, allocate resources, and estimate timelines for development.
- Leveraging Boto3 libraries and other AWS services to implement features and ensure optimal performance and scalability of the developed applications.
- Writing unit tests in Pytest to ensure code quality and minimize the risk of bugs and other issues.
- Building and maintaining DevOps pipelines using Jenkins to automate testing, deployment, and monitoring of the developed applications.
- Ensuring the security of the developed applications by integrating Microsoft Active Directory Authentication and Octa for secure access.

Environment: Python, Flask, RestX, React, Grafana, MySQL, REST, Docker, GIT, AWS ECS, SQLAlchemy, Slack Integration.

UL , Hyderabad, India   **Feb 2021 - Feb 2022**
Role: Senior Software Engineer
Description: Emergo by UL is a leading regulatory consulting firm specializing in global medical device and IVD compliance and RAMS is a comprehensive solution designed to help achieve and maintain regulatory affairs. RAMS has many features like Product Classification, Smart Builder, Registration Tracker, Regulatory Watch, Global Fee finder etc. I have worked on the Registration Tracker and Regulatory Watch services to track the registrations and alert the user when an action is needed. Registration Tracker will avoid missed renewals, and save time with automated registration and certification tracking, Registration Watch will alert regulatory changes and how they impact your registrations across multiple medical device markets.
Responsibilities:
- Developing backend services using Python Flask and SQLAlchemy to integrate with RDS(PostgreSQL) databases.
- Building and deploying applications on EC2.
- Participating in code review sessions to ensure that the code adheres to best practices and is of high quality.
- Worked on user management services, regulatory tracker and regulatory watch
- Worked on notification services.
- Building and maintaining DevOps pipelines using Jenkins and Codeship to automate testing, deployment, and monitoring of the developed applications.
- Implementing JWT-based authentication and authorization to secure access to the applications.
- Collaborate with the Devops team to smooth deployment of the services.
- Implementing cron jobs to schedule daily, weekly, and monthly activities and using SendGrid to send email notifications to users.
- Implemented the frontend modules using ReactJS and written unit testcases using JEST, also added test cases for user interactions using the user-event library.

Environment: AWS, Python, Flask, S3, vue Js,EC2, RDS(PostgreSQL), GIT, Codeship, Cloudwatch, Jenkins, Sendgrid, Marshmallow.

FISSION LABS, Hyderabad, India   **Jan 2020 - Feb 2021**
Role: Senior Software Engineer
Description: Fission Labs is a product services company, It has developed a product to make automated document processing using machine learning. The product is used to extract the meaningful data from scanned documents which are hard to digitize. There is a data pipeline divided into multiple tasks for different operations, each task will communicate with the core APIs written in python Flask to complete the work. I have worked with multiple stakeholders and architects to get the requirements and make design decisions. Worked with frontend teams for request response handshaking. involved in writing many services from scratch.
Responsibilities:
- Develop and maintain Python Flask-based REST APIs for various applications using Flask and SQLAlchemy.
- Implement and manage database models and schema changes using Alembic.
- Worked on development of microservices for user management, document management, annotation management, authentication and text extraction services.
- Written unit test cases using Pytest.
- Use Docker and Docker Compose to package and deploy applications in a consistent and efficient manner.
- Configure and manage Airflow to orchestrate and schedule data processing pipelines and workflows.
- Worked on the document processing pipeline and corresponding worked on the API's for document classification, bounding box detection and text extraction.
- Develop Lambda functions for image processing.
- Manage AWS S3 and SQS services to store and retrieve data and messages.
- Deploy applications to AWS ECS using Fargate.
- Develop and maintain Swagger API documentation for REST APIs.
- Configure and manage Sentry for error tracking and debugging.
- Used Grafana to monitor application performance and resource utilization.
- Develop and deploy machine learning models for document recognition using TensorFlow, CNN, and LSTM.

- Follow the SDLC (Software Development Life Cycle) and implement best practices for coding, testing, and deployment.
- collaborate with other developers, data scientists, and stakeholders to develop and deliver high-quality software solutions.
- Done fixes to the existing ReactJS code and worked as a backup support for the front end.

Environment: Python, Flask, FastAPI, Tensorflow, React, SqlAlchemy, REST, Postgres, Airflow, PySpark, github, VueJS, Grafana, AWS (S3, SQS, ECS), Swagger, Sentry, Datadog, Grafana, Postgres, REST, GIT, Docker, Terraform, Docker-Compose, SQLAlchemy, Slack .

PATH PRESENTER, Hyderabad, India   **Jun 2019 - Dec 2019**
Role: Senior Software Engineer
Description: Path Presenter provides a web-based service to connect pathologists, radiologists, clinicians and life science researchers to share medical data and build tools for enhancing medical education, patient care and management. I have worked on the digital image conversion service for processing the images.
Responsibilities:
- Use openslide, a library used to read whole-slide images in Python, for image processing and analysis.
- Use Azure Key Vault to store and manage cryptographic keys, passwords, and other secrets securely.
- Configure and manage Azure Blob Store for storing digital images and other binary data securely in the cloud.
- Use Azure Auto Scaling to automatically adjust the capacity of virtual machines based on demand and resource utilization.
- Develop and manage MySQL databases to store and retrieve data for the applications.
- Troubleshoot and debug issues related to image processing, database queries, and REST APIs.
- Ensure compliance with data security and privacy regulations in the healthcare industry.

Environment: Azure, OpenSlide, MySQL, Python, Azure Virtual Machines, Azure blob Storage, Azure functions, Autoscaling, MySQL, Flask, Angular, GIT

VIRGIN MEDIA, Hyderabad, India   **JUN 2012 - May 2019**
Roles: Software Engineer/ Python Developer
Description: Virgin Media is a British telecommunications company which provides telephone, television and internet services in the United Kingdom. It categorizes the service it provides to customers into three types: cable, mobile, tv. Depending on the subscriptions it will offer all/few services as a combo or offer individual subscriptions. I have worked on multiple projects like net promoter score which is one of KPI and satisfaction across the VM customer base. Virgin media lends 5g services from other networks to provide the services to its customers. To enable 5g services VM is transforming its network from BT to Vodafone. As part of this program I worked on enabling the services of vodafone and 5g services to virgin media customers. Worked on Fixed Mobile Convergence package to customers to deliver a single bundle which included key products broadband, tv, home phone, mobile so that the customer will pay for their cable media and mobile services at one place. There is no integration between media and mobile systems, I have worked on the integration solution.
Responsibilities:
- Designing, developing, and maintaining ETL processes to extract data from various sources, transform it as per business rules, and load it into target systems
- Processing data in different file formats like CSV, AVRO, and PARQUET using file systems like HDFS. I use tools like PySpark, Hive, and Python to process and manipulate data.
- Written complex SQL queries for doing data transformations and ETL
- Written stored procedures in PL/SQL.
- Migrating data from Netezza to Redshift. This involves understanding the data structures in both systems, designing and developing the migration process, and testing and executing the migration.
- Designing and developing data warehousing solutions to support business reporting and analytics needs. I use tools like PySpark, Hive, and Netezza to design and develop the data warehousing solutions.
- Implementing SCD Type-I and Type-II for slowly changing dimensions. This involves designing and developing ETL processes to handle changes in the dimensions and updating the target systems accordingly.
- Performance tuning of database queries and ETL processes. This involves identifying and resolving performance bottlenecks in the system.
- Creating web services using Flask and deploying them on EC2. This involves designing and developing the web services, testing them, and deploying them on EC2.

- Worked with HTML, JavaScript and Jinja templating to create the frontend of the application.
- Scheduling ETL jobs using tools like Control-M. This involves designing and developing the job scheduling processes, testing them, and ensuring that the jobs run on schedule.
- Integrating data systems to ensure that data flows seamlessly between them. This involves understanding the data structures in different systems, designing and developing integration processes, and testing and executing the integration.
- Worked on performance tuning of the spark and hive queries by identifying and rectifying the performance bottlenecks on long running queries.
- Implementing master data management processes to ensure that data is consistent and accurate across different systems. This involves designing and developing data validation and cleansing processes, and ensuring that master data is maintained correctly.
- Following the software development lifecycle (SDLC) and agile methodologies like Scrum. This involves working with the development team to design and develop software solutions that meet business requirements.

Environment: Netezza, Hive, GIT, Informatica, PySpark, Java, JavaFX, Flask, Oracle, AWS, Redshift, EC2, Shell Scripting, HDFS, Sqoop, Hadoop, Control-M, Pandas.