Shruti Patel

Senior Data Engineer

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# Profile

* A Sr. Data Engineer with 15+ years of experience in Data Engineering, Database Architecture, Data Warehouse, Big Data and Business Intelligence projects.
* Logical and Physical data models for Teradata, PostgreSQL and SQL Server databases. Used forward and reverse engineering to create DDL scripts from Data Model and vice versa.
* Practical understanding of the Data modeling (Dimensional & Relational) concepts like Star-Schema Modeling, Snowflake Schema Modeling, Fact and Dimension tables.
* Strong ability to conduct qualitative and quantitative analysis for effective data-driven decision making.
* Developed, implemented and maintained data analytics protocols, standards and documentation
* Familiarity and experience in the work environment consisting of Business analysts, Production Support teams, Subject Matter Experts, Database Administrators and Database developers
* Proficient in views, Indexes, query optimization, joins and partitioning.
* Experience in extracting, transforming and loading (ETL) data from spreadsheets, database tables and other sources using Microsoft SSIS and Python.
* Known for solving difficult problems and challenges, exceeding expectations, exhibiting a positive attitude, engaging team player, and passion for technology.

# Skills

* Teradata, SQL Server, PostgreSQL, Oracle
* Python, C#, ASP.NET
* Docker, OpenShift
* Microsoft SSIS, Airflow
* Agile with Scrum, Waterfall and Test-driven Development (TDD) Methodology
* NoSQL, Hadoop, Apache Spark
* Git, TFS, SVN

# Experience

## Data Engineering Boot Camp | Springboard | Feb 2021 – present

* Created Capstone Project using Python extracted large amount of NYC Taxi trip raw data, explored data, designed data model using PowerDesigner, created database, cleaned data, loaded into SQL Server database. Analyzed the trip data using Python Matplot library.
* Developed "Banking System Project" using Python and PostgreSQL to demonstrate OOP concepts. Created data model using Power Designer.
* Analyzed large amount of "World Bank Debt" and "Euro Cup" data using complex SQL queries. Also worked on another project to tune the complex SQL queries.
* Developed "Data Pipeline Project" using Python, Python database connector to perform data loading and to query database programmatically.
* Developed Hadoop project using MapReduce and Python to generate a post-sale report for a car sale, and later on redesigned using Apache Spark.
* Developed data pipeline to extract online stock market data and deliver analytical results using Airflow.

## Senior Data Engineer | HCA | jun 2019 – Present

* Created data pipeline to load daily COVID Data to data warehouse using python and OpenShift.
* Developed data quality framework using Python, PostgreSQL and deployed on OpenShift.
* Developed Master Data Management solution for Facilities using PowerDesigner, Ataccama and Teradata. Data Governance practices & processes for Master data management.
* Created WEB API using Flask library in Python to deliver data in JSON format

## Senior Application Engineer | HCA | Oct 2014 – jun 2019

* Designed workflow to utilize REST API for communication between SharePoint, Jira and various databases.
* Developed data model for various data driven projects, developed DDLs for Tables and Views. Also created layer of stored procedures for data access and manipulation and wrote ETL pipelines using SSIS packages to load data to database from various sources like excel, relational database as well as other external sources.

## Application Engineer | HCA | may 2012 – oct 2014

* I worked closely with cross-functional teams to design, develop, and implement applications that provide the most effective business solutions using technologies like Metastorm, C#, SQL Server, JavaScript. Developed stored procedures as well as complex reports on SQL Server based technology stack. Worked on migration efforts from SQL Server 2007 to 2010.

## Analyst Programmer| Vanderbilt Medical center | aug 2007 – may 2012

* As part of development team, I worked on many projects to develop various solutions using technologies like SharePoint, ASP.net, C#, SQL Server, JQuery, JSON, and JavaScript. Also played role of SharePoint and database administrator.

## Application Developer| Emdeon Business Services | may 2007 – jul 2007

* Worked on a project to consolidate system error messages into centralize database using Regular Expressions, VB.net and, Oracle.

## Application Developer| Synergistix Inc | SEP 2005 – may 2007

* As part of development team, I gathered the requirements from the client and translated business details into technical design. Developed various UML diagrams, complex Stored Procedures, Functions and queries using SQL Server. Also developed summary and detail reports using Crystal Reports.

# Education

Master of Science – Computer Engineering | 2003 - 2005 | Fairleigh Dickinson University, New Jersey

Bachelor of Science – Computer Engineering | 1998 – 2002 | Saurashtra University, India

# Certifications

* Spring Board Data Engineering Bootcamp – Feb 2021
* Advanced Certified Scrum Developer