Padmanabhan Vijendran

Big Data Developer / Data Engineer

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in https://www.linkedin.com/in/amazingpaddy/   ⬡ https://github.com/amazingpaddy

⚲ https://amazingpaddy.github.io/

Profile

- IT professional with **12 years** of experience in developing applications using **Java**, **Python** and **Big-Data** technologies
- Extensive expertise in working with **Hadoop**, **Spark 3.x, Spark Structured Streaming, Kafka, Hive** and **HBase**
- **Google Cloud Certified - Professional Data Engineer**
- Strong knowledge of **Python** programming and **Machine learning** concepts
- Proficient in **UNIX commands** and **shell scripting**
- Excellent analytical, communication and monitoring skills
- Adaptable to different technologies and eager to learn new concepts quickly

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Professional Experience

Senior BigData Developer, *Cognizant Technology Solutions - Client: Ford*   08/2021 – present
Project Details: Ford engineers use reports generated by an **ETL** framework to   Mississauga, Canada
design future cars with low manufacturing costs. We are migrating the **ETL**
framework from **Sqoop** and **Hive** to **Apache Spark Structured Streaming** so that
engineers can access near **real-time** reports.

Roles and Responsibilities:

- Migrated **ETL** framework from **Sqoop/Hive** to **Apache Spark Structured Streaming** for Ford Engineering.
- Developed **Spark Structured Streaming** application using **pyspark** that **reduced data processing time by 50%** and increased **report accuracy by 20%.**
- Implemented **ETL** pipelines using **Apache Spark, Kafka** and **MongoDB** that enabled engineers to utilize near real-time reports for designing future cars at low manufacturing cost.
- Designed and developed **Java** application to efficiently fetch data from LDAP servers.
- Refactored **Java** applications to improve readability and performance
- Explored new technologies using **POCs** and documented the approaches to implement new project requirements

Senior BigData Developer, *Kelly Services - Client: Credit Agricole CIB*   03/2018 – 07/2021
Project Details: CMT (Cash Management Transactions): Implemented an internal   Singapore
payment engine that handled incoming and outgoing transactions efficiently using
Java 8, Spark structured streaming, Kafka, HBase and **ELK stack**. Delivered the
project following **Agile methodology.**

Roles and Responsibilities:

- Implemented an internal payment engine using **Java 8** and **Spark structured streaming** that processed over 1 million transactions per day.
- Developed an integration layer using **Spark structured streaming** and **Java 8** that enabled seamless communication between the payment engine and other applications

- Designed and built a data pipeline using **Kafka, HBase** and **Spark** that ingested, stored and analyzed transaction data in real-time
- Created **Python** scripts to automate demo tool and performance report generation, reducing manual effort by 50%
- Created custom source and sink connectors for **IBM MQ** using **Spark structured streaming** that improved data reliability and throughput
- Developed **Jenkins** pipelines using **groovy** and **shell scripting** that facilitated continuous integration and delivery of code changes
- Automated functional testing using **Cucumber** framework that ensured high-quality code delivery
- Set up application logs using **ELK** stack and created dashboards for monitoring performance metrics

Big Data Developer, *Cognizant Technology Solutions - Client: Ford*   02/2016 – 11/2017
Project Details: I worked on the project that generated reports to help Ford   Chennai, India
Engineer to design a future cars at low manufacturing cost. We implemented **ETL** using **BigData** tools such as **Apache Spark 2.3, Hive, Sqoop** and **Oozie.**

Roles and Responsibilities:
- Extracted data from various Oracle databases to **HDFS** and **Hive** using **Sqoop** scripts
- Transformed data to the required schema using **Hive** scripts
- Developed **Java** application to generate Excel reports from **Hive** table data using **Apache POI**
- Explored ETL with **Alteryx, Apache Spark** using **POCs**
- Automated manual tasks using **Python** and **shell scripts**

IT Analyst, *Tata Consultancy Services - Client: Target, USA*   01/2011 – 01/2016
Project Details: I worked on the project that processed product images and details   Chennai, India
for Target website using **ETL Java** application and **SQL** scripts.

Roles and Responsibilities:

- Developed **ETL Java** application to process product information using **Map-Reduce**
- Wrote **SQL** scripts to transform product related data
- Automated manual tasks using **Python**
- Investigated and analyzed application **support incidents** through to root cause and fix
- Proactively monitored services and responded to alerts raised by customers and **monitoring** systems, ensuring the availability and performance of the **Teamsite** Content Management Systems

Skills

Programming Languages ● ● ● ● ○
Java, Python

JAVA EE Frameworks ● ● ● ○ ○
Spring MVC, Spring Data, Spring Security

BigData Tools ● ● ● ● ○
Apache Spark, Kafka, Hive

Databases ● ● ● ● ○
SQL, MongoDB, HBase

Machine Learning ● ● ○ ○ ○
Probability and Statistics, Linear Algebra, EDA,
Pandas, Numpy, Pytorch, KNN, Naive Byes

Cloud ● ● ● ● ○
AWS, Azure, GCP

DevOps ● ● ● ○ ○
Docker, Kubernetes, Jenkins, Tekton pipelines

Automation Scripts ● ● ● ○ ○
Shell, Batch, Powershell, Selinium

Other Tools ● ● ● ● ○
Intellij, Eclipse, Git, Gitlab, Putty, ServiceNow,
Rally.

Testing Frameworks ● ● ● ● ○
Junit, Cucumber

Certificates

- Google Cloud Certified - Professional Data Engineer ⧉

- Microsoft Certified: Azure AI Fundamentals ⧉

- AWS Cloud Practioner ⧉

Projects

Telegram BOT to Interact with ChatGPT, *Personal Projects*
I developed a telegram BOT ⧉ to interact with chatgpt using Python 3.11 and OpenAI chatgpt API that
supports models - text-davinci-003, gpt-3.5-turbo, gpt-4

Courses

GCP Data Engineering, *Google Qwik-Labs* ⧉