

Padmanabhan Vijendran

Big Data Developer / Data Engineer

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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**
- 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

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 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.

Mississauga, Canada

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 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**.

Singapore

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 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**.

Chennai, India

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 for Target website using **ETL Java** application and **SQL** scripts.

Chennai, India

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



Automation Scripts

Shell, Batch, Powershell, Selinium



DevOps

Docker, Kubernetes, Jenkins, Tekton pipelines



Testing Frameworks

Junit, Cucumber



Other Tools

Intellij, Eclipse, Git, Gitlab, Putty, ServiceNow,
Rally.



Certificates

- AWS Cloud Practioner [↗](#)
- Azure Certified AI Fundementals

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*