

Pawan MISHRA

in [linkedin.com/in/rkpawan](https://www.linkedin.com/in/rkpawan) pawanmishra.github.io
+1 737-202-7676 @ rk.pawan@gmail.com Austin, TX USA

Software developer with 12+ years of experience in developing wide range of applications in healthcare domain. Well versed in big data, public cloud & .Net stack. Interested in devising a better problem-solving method for challenging tasks, and learning new technologies and tools if the need arises.

COMPETENCIES

Programming Languages	Scala, C#, Java, Python
Stack	BigData, AWS, .Net, Java
BigData	Spark, Hive, Hadoop, HDFS, Zeppelin
AWS	SNS, SQS, Step Functions, VPC, EMR, S3, Athena, Glue, Lambda, Terraform
Databases	Microsoft SQL Server, Oracle, PostgreSQL
Development Tools	IntelliJ Idea, Visual Studio, Maven, Gradle, Jenkins, Bamboo, Git, Sonar

HIGHLIGHTS

- 4+ years of experience in working with BigData and Cloud technologies & 3+ years of experience in leading software development teams
- Experienced in migrating on-prem relational database-driven ETL pipelines over to BigData and Cloud stack
- Experienced in working with varied Spark related use-cases like implementing complex analytics using DataFrame API, running 3rd party executables as Spark jobs, etc.
- Experienced in optimizing application performance and tuning of Spark and relational database queries
- Hands-on experience in setting up AWS pipeline for running bigdata projects
- Well versed in working with the following components in the AWS ecosystem - S3, SNS, SQS, StepFunctions, VPC, Lambda, EMR, Glue, Athena, IAM, etc.
- Accelerated the adoption of bigdata and cloud within the organization by providing training and assistance to other teams
- Comfortable in team and project management related activities like leading scrums, sprint planning, backlog grooming and interfacing with internal and external stakeholders

PROFESSIONAL EXPERIENCE

Present
March 2018

Sr. Mgr. Data Engineering | Senior Developer, Optum, Austin

Currently leading the platform foundation team, which is tasked with the responsibility of building the Spark & AWS based platform for running the Optum Analytics products.

- Lead a team of six senior developers and migrated the OADW pipeline from Oracle to Bigdata in less than six months. This resulted in reduction of build time from days in Oracle to less than three hours in Spark
- Implemented JSQParser based library for translating ddl statements from one dialect into another and for generating strongly typed case class objects
- Implemented multiple complex healthcare measures in Spark using DataFrame API
- Decoupled application development from schema management by introducing schema-as-contract pattern
- Implemented multiple Spark and Scala based libraries that are used by multiple teams within the organization
- Implemented Spark based data-importer with support for overriding partitions & data types
- Currently working on building the framework for running Optum Analytics products in AWS
- Introduced AWS cost saving initiative(s) like switching to ephemeral EMR with spot instances in the project
- Experienced in working with Terraform for implementing AWS infrastructure as code
- Implemented StepFunctions based workflows that orchestrates activities running in AWS as well as in the on-prem HDP cluster
- Besides standard developer related activities, I also lead the project planning, release management, daily stand-up & other project management related activities in the current project

Scala Python Spark Hive Oracle Hadoop Maven Jenkins HDP AWS SNS SQS Lambda
StepFunctions Athena Glue Terraform

March 2018
October 2015

Senior Software Engineer, The Advisory Board Company, Austin

Big Data Platform(BDP) is The Advisory Board's first BigData & AWS based data ingestion pipeline. The platform enabled other product teams to build their enrichments against the ingested data.

- Orchestrated member configuration process using AWS SQS, SNS, Lambda, Step Functions & python scripts
- Added support for running industry standard MS & 3M APR DRG groupers as Spark jobs against AWS EMR
- Implemented custom Hive authenticator for supporting LDAP authentication
- Implemented healthcare metrics like percentage readmission, cost & charges as Spark based enrichments
- Successfully migrated SQL Server based pipeline onto AWS & BigData stack

Scala Java Spark Hive Postgres S3 SQS SNS StepFunctions Lambda CloudFormation EC2 VPC
EMR Zeppelin

June 2015
Sep 2013

Associate Development Manager, The Advisory Board Company, Chennai

PDR is a centralized large-scale multi-tenant patient data repository. It supports functionalities like loading of data in real-time, restful endpoints for querying loaded data and other patient data related analytics.

- Used T4 templates for automated generation of .Net code from XML files
- Implemented PowerShell based framework for end-to-end testing of the application
- Implemented multi-threaded worker engine for processing SQL Server Service broker queues
- Interfaced with the team in the USA & managed the development & services team in India

C# SQL Server WPF Asp.Net WebApi Rx .Net PowerShell xUnit Ninject

August 2013
July 2012

Analyst, Barclays Capital, Pune

Worked on two applications : Meteor & CDRP. Meteor is a trade capture tool used for precious and base metal trading. CDRP is a commodities specific in-house developed risk calculation engine used for calculating risk of vanilla and exotic trades.

- Implemented web based frontend for the application. Focused on application performance related issues.
- Implemented WIX based installers.

C# Asp.Net jQuery Bootstrap WPF WIX SQL Server

June 2012
August 2010

Senior Software Engineer, The Advisory Board Company, Chennai

Worked on market leading analytics software called Crimson Continuum Care. It offers severity-adjusted performance profiles, enabling the hospital-physician collaboration needed to advance quality goals and secure cost savings.

- Part of the product architecture review committee
- Re-wrote measure mapping engine. Improved overall performance by significantly reducing number of database hits
- Re-architected PDF reporting module to support unlimited number of reports
- Implemented TPL based in-memory measure calculation engine called Insight

C# Asp.Net MVC jQuery SQL Server Mercurial .Net TPL

July 2010
October 2007

Senior System Engineer, Infosys Technologies Ltd., Bangalore

- Successfully migrated applications running on commercial workflow engine over to WF 3.0.
- Single-handedly built web app called Vendor Portal using WF 3.0, Asp.Net, jQuery, Ajax.
- Received awards & accolades for introducing new technologies & good software development practices in the team(s).

C# Asp.Net Ajax WF 3.0 jQuery SQL Server

 **EDUCATION**

2003 - 2007 B-Tech in Computer Science from Dr. MGR Deemed University, Chennai. Gold medalist with 9.2 CGPA.