

# Pawan MISHRA

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Cloud and BigData enthusiast with 16+ 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  
**Tools & Tech Stack** BigData, AWS, .Net, Java, Jenkins, Maven, Git, Sonar  
**Frameworks** Spark, PySpark, Hive, Apache Iceberg, Hadoop, HDFS, Databricks

## HIGHLIGHTS

- 7+ years in big data and cloud, 6+ years leading software development teams
- Experienced in designing & building bigdata analytics pipeline in the public cloud
- Led the development, maintenance, and promotion of Spark platform components across the organization
- Hands-on development experience in Spark, Scala, AWS, and other associated technologies
- Experienced in all phases of product development, from roadmap planning to production rollout
- Accelerated big data and cloud adoption by training and assisting other teams
- Active in organizational activities like recruitment, immigration and visa sponsorship, internship, employee engagement activities

## PROFESSIONAL EXPERIENCE

**Present**  
**Nov 2021**

### Director Of Engineering, Optum, Austin

Leading OptumInsight's provider engineering data platform teams, building platform components to minimize client implementations.

- Overseeing an AWS account with an annual spend of more than 1.5 million dollars
- Acting as Solution Architect for OptumInsight's Azure based analytics offering called Enterprise Intelligence Platform(EIP)
- Initiated multiple cloud-oriented modernization efforts across applications
- Found and repurposed open source tool rabbit-in-a-hat for efficient domain mapping and etl authoring
- Implemented low-code etl authroing framework using SQL & Spark
- Prioritized cloud cost optimization, saving 1+ million annually
- Lead product roadmap, cloud cost, resource allocation, and project assignment related activities

Spark Scala AWS Azure Cost Optimization Spark Healthcare Analytics ETL

**Nov 2021**  
**March 2018**

### Sr. Mgr. Data Engineering, Optum, Austin

Lead the platform foundation team and successfully migrated OADW data pipeline from Oracle to AWS.

- Designed and implemented multiple Spark based libraries(SDL, dfParser, data-etl, etc.) that accle- rated the cloud migration
- Implemented JSQLParser based library for converting SQL schema from one dialect to another
- Implemented Spark based lighthouse but highly efficient data importer library
- Decoupled application development from schema management by introducing schema-as- contract pattern
- Architected the OADW's AWS data pipeline architecture
- Introduced multiple application development and production release related processes
- Optimized ETLs, reducing build time from days to hours
- Implemented measures like Immunization Compliance, Encounter Grouping, Provider Mastering, etc. in Spark

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

<b>March 2018</b> <b>October 2015</b>	<b>Senior Software Engineer, The Advisory Board Company, Austin</b> 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. <ul style="list-style-type: none"> <li>➤ Added support for running industry standard MS &amp; 3M APR DRG groupers as Spark jobs against AWS EMR</li> <li>➤ Implemented custom Hive authenticator for supporting LDAP authentication</li> <li>➤ Implemented healthcare metrics like percentage readmission, cost &amp; charges as Spark based enrichments</li> </ul> <div>             Scala Java Spark Hive Postgres S3 SQS SNS StepFunctions Lambda CloudFormation EC2 VPC              EMR Zeppelin           </div>
<b>June 2015</b> <b>Sep 2013</b>	<b>Associate Development Manager, The Advisory Board Company, Chennai</b> PDR is a centralized, multi-tenant patient data repository with real-time data loading and RESTful endpoints for querying and analytics <ul style="list-style-type: none"> <li>➤ Used T4 templates for automated generation of .Net code from XML files</li> <li>➤ Implemented multi-threaded worker engine for processing SQL Server Service broker queues</li> </ul> <div>             C# SQL Server WPF Asp.Net WebApi Rx .Net PowerShell xUnit Ninject           </div>
<b>August 2013</b> <b>July 2012</b>	<b>Analyst, Barclays Capital, Pune</b> Worked on two applications : Meteor (precious and base metal trade capture) and CDRP (commodities risk calculation). <ul style="list-style-type: none"> <li>➤ Implemented web based frontend for the application. Focused on application performance related issues.</li> </ul> <div>             C# Asp.Net jQuery Bootstrap WPF WIX SQL Server           </div>
<b>June 2012</b> <b>August 2010</b>	<b>Senior Software Engineer, The Advisory Board Company, Chennai</b> Worked on market-leading analytics software Crimson Continuum Care, enabling hospital-physician collaboration for quality and cost savings. <ul style="list-style-type: none"> <li>➤ Re-wrote measure mapping engine. Improved overall performance by significantly reducing number of database hits</li> <li>➤ Implemented TPL based in-memory measure calculation engine called Insight</li> </ul> <div>             C# Asp.Net MVC jQuery SQL Server Mercurial .Net TPL           </div>
<b>July 2010</b> <b>October 2007</b>	<b>Senior System Engineer, Infosys Technologies Ltd., Bangalore</b> <ul style="list-style-type: none"> <li>➤ Successfully migrated applications running on commercial workflow engine over to WF 3.0.</li> <li>➤ Received awards &amp; accolades for introducing new technologies &amp; good software development practices in the team(s).</li> </ul> <div>             C# Asp.Net Ajax WF 3.0 jQuery SQL Server           </div>



## EDUCATION

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