### ADARSH DESHRATNAM

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# **Objective:**

To obtain a challenging position of IT professional that will allow utilizing my knowledge and skills, providing continuous growth of organization as well the technical community.

#### **Technical Skills:**

- Tackling the Challenges of Big Data (MIT, USA)
- Certified in Neo4j Graph DB modeling
- Certified Data scientist from jigsaw academy
- Certified Hadoop Developer and Administrator (Edureka)
- Certified Spark developer (Edureka)
- Certified AWS architect (Edureka)
- Cisco Certified Network Associate(CCNA)
- Certified "Java Design Patterns and Architecture" by Udemy
- Certified Scraping and Data Mining by Udemy
- IBM Certified expert AIX+C/ AIX Platform
- Undergone Training on Rational Application Developer for WebSphere Software V6 at IBM COE.
- CMS development with Escenic 4.3 and 5.3 tool.
- Hadoop MultiNode Cluster Setup, Administration, Development, Design and Deployment
- NoSQL and real time analytics
- Search Engine Intergation.
- Big Data/Hadoop solution Architecture, Design & Development
- Rapid and cost-effective POCs development

**Programming Languages :** Python, R, Scala, C(Windows, Linux & AIX platform), Haskell, Prolog, Anaconda.

**Big data processing:** Hadoop (Apache, HDP, Cloudera, EMR & HDI), HDFS, Spark, Pig, Hive, Hbase, Zookeeper, Sqoop, Kafka, Impala, flume, Sentry/Ranger, Navigator, Oozie, Yarn, Avro, Orc, Parquet

NoSQL: MongoDB, Cassandra, Amazon Simple DB, DynamoDB, Neo4J

# **Data Science & Machine learning:**

**Descriptive Statistics**: (Mean, median, mode Data distributions, Standard normal, Exponential/Poisson, Binomial, Chi-square Standard deviation and variance)

*Inferential Statistics:* Hypothesis testing, P-values, Confidence Intervals Test for significance, Z-test, t-test, Mann-Whitney U, Chi-squared and ANOVA testing

**Regression** (Linear Regression, Logistic Regression), **Supervised Learning** (Decision trees, Naive Bayes classification, Ordinary Least Squares regression, Logistic regression, Neural networks, Support vector machines, Ensemble methods)

*Unsupervised Learning:* (Clustering Algorithms, Principal Component Analysis (PCA), Singular Value Decomposition (SVD), Independent Component Analysis (ICA), Reinforcement Learning)

Q-Learning, TD-Learning, Genetic Algorithms

**Deep Learning:** Neural Networks, Convolutional Neural Networks, Recurrent Neural Networks, Generative A

BI tools: PowerBI, Qlikview, Tableau, D3js based dashboards

#### **Cloud:**

**AWS:** EC2, Auto scaling ,EC2 container Registry, Elastic Container Service, Amazon Managed Streaming for Apache Kafka, Amazon EMR, AWS Lake Formation, Amazon MQ, SNS, SQS, S3, EBS, EFS, Glacier, Backup, snow family, storage Gateway, VPC, CloudFront, Route 53, Cloud Map, Direct connect, VPN, ELB, IAM, CloudWatch, CloudTail, CloudFromation, DynamoDB, RDS, ElastiCache, Redshift, SageMaker, translate.

AZURE: Cognitive Services, Computer Vision, Data Science Virtual Machines, Azure Machine Learning service, Machine Learning Studio, Text Analytics, Translator, Azure Stream Analytics, HDInsight, Data Factory, Data Lake Analytics, Event Hubs, Power BI Embedded, Azure Analysis Services, R Server for HDInsight, Data Catalog, Azure Data Lake Storage, Azure Data Explorer, Virtual Machines, Service Fabric, App Service, Container Instances, Batch,SQL Server on Virtual Machines, Cloud Services, Web Apps, Linux Virtual Machines, Windows Virtual Desktop, SQL Server on Virtual Machines, Azure SQL Database, Azure Cosmos DB, SQL Data Warehouse, Data Factory, Azure Database for MySQL, Azure Database Migration Service, Azure Data Explorer, Azure SQL Database Edge, Azure Active Directory, Azure Active Directory Domain Services, Azure Monitor, Network Watcher, Azure Service Health, Storage Accounts, Azure Backup, StorSimple, Azure Data Lake Storage, Blob Storage, Disk Storage, Managed Disks, Queue Storage, File Storage, Archive Storage, Storage Explorer, Content Delivery Network, Azure DNS, Virtual Network, Load Balancer, VPN Gateway, Application Gateway, Network Watcher, Network performance monitoring and diagnostics solution

**Versioning Tools:** VSS, Tortoise SVN, Git.

DBMS: MySQL, Oracle 10g.

Web development: J2ee (Servlet, Jsp) Stuts 1.2, JSTL, PHP 5, Axis Webservices.

**Search Engines:** Hp Autonomy, Apache solr, Apache lucene, Elastic search

# **Corporate Project Experience**

# April 2019- till now | Lead Consultant | Wipro Technology | Client: Mitie

Mitie Group PLC is a British strategic outsourcing and energy services company. It provides infrastructure consultancy, facilities management, property management, energy and healthcare services.

**Technology Used**: Azure cloud, Cloudera, Airflow,sqoop, SparkSQL, Spark Streaming, Kafka, Cassandra, *Streamsets, Azure Data Lake, Hive, python, scala, sparkML,* Elasticsearch, Kibana, Sentry, IOT sensors(Yanzi, Elsys, Monnit, PointGrab, Inovu), Mosaic Dashboards, PowerBI, Tableau, AWS workspace, Anaconda, Jupyter notebook.

#### **Responsibilities:**

- Development of proposals for implementation and design of scalable big data architecture
- Convert analytics strategy into architecture guidelines
- In conjunction with Business Translators and Data Scientists, create analytic solutions in line with Stakeholder needs
- Design, develop, and deliver Analytics solutions
- Provide technical help to Analytics team members as and when required.
- Focused to build on capabilities and design model to embed Automation implementation within Analytics ways of working.
- Responsible for requirements, analysis/design, and coordination of execution for automation implementations.
- Own the end-to-end delivery on all technical matters for Solutions provided as Analytics (also with Automation features)
- Data science/ML Model building
- Interacts with Business solution owner, process owners and solution users
- Work with Business Analyst, Data scientists, Data Engineers and Data Analysts
- Gets in contact with partners and vendors for learning about products and architectures
- Creating strategies and roadmaps for continuous development and adaptation of current tools and platforms to the future trends and optimal performance with respect to the business needs

Jan 2019- Mar 2019 |Lead Consultant |Wipro Technology |Client: ABB

ABB is a Swiss-Swedish multinational corporation headquartered in Zurich, Switzerland, operating mainly in robotics, power, heavy electrical equipment and automation technology areas.

**Technology Used**: Anaconda, jupyter notebook, Azure cloud, Cloudera, SparkSQL, Spark Streaming, *hive, Impala, Azure Data Lake, Hive, python, scala, sparkML, Sqoop, Sentry, Anaconda, Jupyter notebook. Cosmos DB/Neo4j.* 

#### **Responsibilities:**

- Development of proposals for implementation and design of scalable big data architecture
- Participation in customer's workshops and presentation of the proposed solution
- Design, implement, and deploy high-performance, custom applications at scale on Hadoop and DS/ML models
- Identify the technologies that would be used for the product.
- Development of proposals for implementation and design of scalable big data architecture
- Recommend the development methodology and framework for the project.
- Design, estimate, and provide big data /data science solutions
- Provide the overall design and structure to the application.
- Ensure that the product is adequately defined & documented.
- Establish design/coding guidelines and best practices, and drive usage of design patterns.
- Enforce compliance with coding guidelines using code reviews etc.
- Build solution which is easily configurable, deploy-able and secure in SaaS environment.
- Responsible for planning product iterations & releasing iterations on schedule.
- Mentor team members

# Nov 2016- Dec 2018 | Lead Consultant | Wipro Technology | Client: Beckton Dickinson

Becton, Dickinson and Company (BD) is an American medical technology company that manufactures and sells medical devices, instrument systems, and reagents. Founded in 1897 and headquartered in Franklin Lakes, New Jersey, BD employs nearly 50,000 people in more than 50 countries throughout the world. In fiscal year ending September 30, 2009, 60% of BD sales were generated from non-U.S. markets. The company's customers include health care institutions, science researchers, clinical laboratories, the pharmaceutical industry, and the general public. BD was one of the first companies to sell U.S.-made glass syringes. It was also a pioneer in the production of hypodermic needles. Today, BD is divided into two segments: BD Medical and BD Life Sciences.BD is ranked #251 in the 2018 Fortune 500 list.

**Technology Used**: Azure HDInsight, SparkSQL, Spark Streaming *Azure ML studio, Azure Data Lake, Hive, python, scala, sparkML, Sqoop, Anaconda, Jupyter notebook.* 

# **Responsibilities:**

 Development of proposals for implementation and design of scalable big data architecture

- Participation in customer's workshops and presentation of the proposed solution
- Design, implement, and deploy high-performance, custom applications at scale on Hadoop and DS/ML Model
- Define and develop network infrastructure solutions to enable partners and clients to scale NoSQL and relational database architecture for growing demands and traffic
- Define common business and development processes, platform and tools usage for data acquisition, storage, transformation, and analysis
- Develop roadmaps and implementation strategy around data science initiatives including recommendation engines, predictive modeling, and machine learning
- Review and audit of existing solution, design and system architecture
- Perform profiling, troubleshooting of existing solutions
- Create technical documentation
- Work with Data scientists to build DS/ML model specific to the problem statement.
- Deep understanding on Hadoop framework (Eg.hadoop hive, pig,hbase Sqoop, Flume, Kafka, Storm, Falcon, NiFi.. etc)
- Experience in BigData-Hadoop Technologies and architecting a big data landscape for large organizations
- Experience working with multiple Hadoop distributions (eg. Hortonworks, Cloudera, MapR)
- Hands on experience working with Hadoop file system (eg. HDFS / MapRFS)
- Experience with the Hadoop ecosystem components Map Reduce, Hive, Pig, Spark, Oozie, Zookeeper, Ambari
- Proficient in designing, developing & deploying scalable big data analytic solutions based on Hadoop and NoSQL (Eg. HBase, Cassandra, MongoDB)
- Strong technical knowledge and programming experience in real time streaming with Spark and Kafka
- Experience working with cloud and on premise Hadoop environments
- Experience on Hadoop Performance Tuning
- Should have led full life cycle development of ETL and analytics solutions for high volume (hundreds of TB) data
- The candidate is expected to have hands on experience with Hadoop programming and should be willing to do code reviews (and programming to an extend) along with design and architecture activities
- Hands-on experience in development, capacity planning, deployment and troubleshooting
- Added Advantages
- Specialized in agile/scrum methodologies, Excellent analytical and problem solving skills
- Working Knowledge on Hadoop security components (Eg. Data Encryption, Kerberos, Ranger, Knox)
- Programming experience with Python, Scala
- Experience in Hadoop Administration

# Oct 2014 - Sep 201 | Senior Consultant(Big Data & Cloud) | Edupro Technology

#### Project 1:

**Technology Used**: Amazon EMR, EC2, DynamoDb, Hbase, *java, pig scripting,* HDFS, mapreduce, Sqoop, Hive, Spark sql, Spark streaming, *python, scala, Mysql, ,pig scripting, SAS, RDS, SAAS, IAAS, Machine learning*, Anadonda, *juypter notebook* 

#### **Responsibilities:**

- Engineering data pipelines (batch and real-time) to arrive at data-driven products catering to various use cases
- Provide solution to keep the Data platform secure, reliable and functional.
- Designing and implementing solutions (in the Hadoop ecosystem) with the Non-recurring engineering principle.
- Design and develop solutions using data science techniques ranging from statistics, algorithms to machine learning.
- Provide solution for Big data platform architecture based on Hadoop stack (e.g. MapReduce, Sqoop, Pig, Hive, Hbase, spark)
- Data modeling and advanced Reporting.
- Code in a variety of languages, primarily java.
- Provide solution for large-scale, distributed systems, with ETL tools
- Follow Agile development methodology.
- DS/ML Model development using jupyter notebook and python
- Work closely with various departments in the company for requirement gathering / analysis and designing the solution.

### Project 2: | Modelytics India pvt ltd |

#### Profit Pi Tool

**Technology Used**: Amazon EMR, EC2, DynamoDb, Hbase, *java, pig scripting, HDFS*, mapreduce, Sqoop, Hive, Spark, *python, scala, Mysql, ,pig scripting, SAS, RDS, SAAS, IAAS, Machine learning, Anadonda, juypter notebook* 

#### **Responsibilities:**

- Responsible for implementation of full lifecycle of a Hadoop solution, including requirements analysis, platform selection, technical architecture design, application design and development, testing, and deployment
- Requirements gathering, Solution Architecture, Design, Development, Deployment and maintain scalable infrastructure and platform to collect and process very large amounts of data (structured, semi-structured and unstructured), including streaming real-time data.
- Provide solution for Big data platform architecture based on Hadoop stack (e.g. MapReduce, Sqoop, Pig, Hive, Hbase, storm, spark)

- Data modeling and advanced Reporting.
- Code in a variety of languages, primarily java.
- Provide solution for large-scale, distributed systems, with ETL tools
- Follow Agile development methodology.
- Work closely with various departments in the company for requirement gathering / analysis and designing the solution.
- Client facing for requirements sessions and lead teams and present analysis in business terms
- Have led / managed / executed analytics driven project through the complete life-cycle of the project

# Dec 2012 - Sept 2014 | Hadoop Cloud developer/Telecom consultant | Alcatel-Lucent(GI group)|Team size: 13

#### Wireless Network Optimization Tool (WiNoT) | KPNGB

**Technology Used**: HDFS, mapreduce, Sqoop, Hive, Hbase, *java, Mysql, Oracle ,pig scripting, SAAS, IAAS ,cloudera* 

#### **Responsibilities:**

- Requirement gathering, Analysis and converting into high level design.
- Decide best suited technology to meet the business goal within provided resource.
- Written MR jobs, Pig scripts, Hive queries and used hbase apis.
- Developed and help developing codebase, test and deploy.
- Involved in data manning to provide recommendation for optimizing network performance and network behavior analysis.
- Designing core modules and helping peers technically.

Jun 2012 – Dec 2012|MDM Developer/Telecom consultant |Alcatel-Lucent, Poland(Avoin system)|

#### MDM | Europe based client Belgacom

**Technology Used**: java, j2ee, Hadoop, Cloudera, Hive, Pig, Cassandra, javascript, HTML 5 and xml

#### **Responsibilities:**

- Worked and co-ordinated with team members dispersed worldwide.
- Developed new modules, functions of GNEIC Tools based on HLD.
- Wrote MR jobs for the core modules.

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- Worked on the data manning process- telecom network error tracking and optimization.
- Worked on multiple modules of MDM based on customer requirement.
- Developed code base in java and used hadoop for big data processing.

#### Jan,2012 - May 2012 | Developer

# Java web application gettarget.com

**Technology Used**: Java, MySql,J2ee,Jstl,XmlCss,javascript,Amazon cloud,IAAS

Bangalore based client going to start online educational portal.

#### **Responsibilities:**

- Involved in complete development of the web application start from requirement gathering up to application delivery.
- Minned the click streamed data to add analytics to the education and ecommerce site.
- Regular status reporting, meeting with client on project progress

# August, 2010 - Dec 2011 | Collabera Solution Pvt. Ltd. | Software Engineer

#### Informa-COPP Informa Healthcare. (IHC)

**Technology Used**: J2EE (Servlets, JSP, Struts Frame work), JSTL, Search Engine(Autonomy), JNI, MySql, OpenLdap(Light weight Directory Access Protocol), AMS(Access Management System), Tomcat 5.5, Apache solr, CMS (Escenic 4.3), Eclipse IDE, SQL Query Browser, DWR, Omniture, XML, XSLT, Apache ANT.

Informa Healthcare provides authoritative research and analysis, up-to-the-minute news, comment and debate for all sectors of the Healthcare and Life Sciences community. It serves the commercial needs of business leaders, the research needs of the scientific community and the 'good practice' needs of healthcare professionals. They integrate a unique range of publishing formats, from major online databases and news services to research and review journals and books. In this project we have provided developed nine websites, seven for Europe region(UK) and two for USA client.

## **Responsibilities:**

- Involved in analysis, estimation and development of the project.
- Used Struts MVC framework to enable the interactions between JSP/View layers.
- Written apache redirect rule.
- Used APIs( GA APIs, FB APIs, Captcha)
- Involved in the client meeting and call individually and with team.

- Preparing release notes and taking care of all deployment activities
- Involved in XML parsing coding and XSL transformation.
- Responsible for build process to deploy the application.
- Involved in Creating Patches, Code Base and Sanity Code Checking's for Code Release to Client.
- Completion of development on time, within scheduled plan.
- Doing QA for testing of requirement done .Did testing (Unit testing, System Integration testing and regression testing)
- Code review.
- Involved in writing test cases for unit testing, functional testing, integration testing.
- Regular client communication for requirement related clarification.
- Involved in CMMI L5 QA and project management stuffs.
- Status reporting (weekly) on project progress

# June, 2006 - August, 2010 | Getmedbooksonline | Part time Developer

#### GetMedbook Online Book shop

**Technology Used**: Java, j2ee, solr, lucene, XML, XSLT, Apache ANT, PHP, jquery.

GetTarget has started their online medical book shop. The application was developed in struts with lucene and solr to implement search functiality.

#### **Responsibilities:**

- Involved in development of the project.
- Writing code in java for the task assigned by Team lead.
- Written parser code for multiple XML files.
- Used APIs( GA APIs )
- Preparing documentation and looked after knowledge base inventory.
- Involved in writing test cases for unit testing, functional testing, integration testing.
- Involved in XML parsing coding and XSL transformation.
- Responsible for build process to deploy the application.
- Did unit testing for own developed codebase.

#### **Education:**

Year	Qualifications	Board /University
2006-2010	B.E. ( Computing)	(APIIT SD INDIA) Staffordshire University, UK
2005	XIIth	CBSE(Delhi Public School, Ranchi)
2003	Xth	CBSE(Rose Public School)

# **Achievements**

- 12 Award in a year in Wipro including best consultant &trainer.
- Member of IETE(The Institution of Electronic And Telecommunication Engineers)
- Vice –chairman of IETE student community.
- Participated in blood donation camp(organized by Lions club) i.
- Organized 'Engineer's Day event' in college
- Active NSS member.
- Member of CSI and IEEE
- Got appreciation letter for contribution to CMMI L5 certification by Collabera solutions Pvt. Ltd.