

Sridip Banerjee, M.Sc.

Oakville, Ontario, Canada

Senior Big Data/Cloud Developer(Java|Scala|Python|Spark|Kafka|AWS|GCP|Cloud DevOps| Machine Learning)

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Summary

An innovative and hardworking young professional focused on growing in the field of Software Development, having 12 years of Software Development experience at a Telecommunication Company(Blackberry),at Software company(Sandvine, Toronto Stock Exchange), at a Research Institute(Saha Institute of Nuclear Physics) and at Global Investment Bank(RBC Capital Markets, Scotia) and 3 years of research experience in Computer Science(Pattern Recognition, Machine Learning, Data Mining) with 5 Research Publications(Machine Learning, Pattern Recognition). An excellent problem solver.

Certified Agile practitioner

Specialties: Machine Learning, Pattern recognition, Natural language Processing, Artificial Intelligence, Android SDK, High Frequency Trading, Java/J2EE development, Spark, Hadoop, Angular.js

Languages: Java, Scala, Perl, Python, PHP, Groovy, PL/SQL, JavaScript, Shell(BASH, KSH)

Framework: Java Enterprise Edition(J2EE), Spring, Struts, Groovy on Grails, Adobe Flex

Databases:Oracle 11g, SQL Server 2008, MySQL, PostgreSQL, PL/SQL, T-SQL, NoSQL, MongoDB, Elastic Search

Application Servers: WebSphere 6.1, JBoss 5.1, Apache Tomcat, Glassfish

Web Services: Java Web Services (JAX-WS,JAXB,WSDL,SOAP)

Web Technologies & Tools: J2EE (Servlet, JSP, JDBC, RMI, EJB), Java Applet, GSP, ASP, XML, XSD, DTD, XSLT, xpath, JAXP, JavaScript, jQuery, AJAX, HTML 5, XHTML, DOM, IIS, CSS3, Google Web toolkit,Java Applet,Google Web toolkit,Selenium, JMS, Solace Message-oriented middleware

Technologies: Gradle, ANT, Maven, Apache Ivy, Autosys(JIL), FIX protocol, Spring annotation, SOA, NLP, Hadoop, Hive, Apache Mahout, Android SDK, Tidal, JUnit, JNI, log4j, Selenium, Hibernate, JPA, MATLAB, subversion, SOAPUI, IntelliJ, Eclipse, Spring Tool Suite, subversion, Git, MicroStrategy Business Intelligence, Google Analytics, Coverity, BlackBerry SDK, Junit 4,Design Patterns,Hibernate,Multi-threaded,Apache Camel

Operating Systems: Android, QNX, UNIX, Sun Solaris, Linux, FreeBSD, Windows Server

Experience

Lead BigData Developer at TD Wealth

May 2018 - Present (1 year 5 months)

AWS SageMaker, AWS Lambda, S3, AWS RedShift, Route 53, AWS CLI, Amazon State Machine, Amazon State Language(ASL), CloudFormation, AWS CloudTrail, AWS CloudWatch, AWS IAM, AWS VPC, AWS SNS, AWS SQS, Terraform, Jenkins Pipeline, AppDynamics, FortifyScan, DevOps, AWS RDS, AWS DynamoDB, AWS EC2, AWS KMS, AWS WorkSpace, AWS API Gateway, AWS Cognito, Python, Boto3, Apache Spark 2.2, Scala 2.12, RDD, DataFrame API, SparkSQL, Apache Kafka, Kafka cluster configuration Kerberos, Kafka Security SSL, Kafka broker, KSQL, Cassandra, DSEFS, HDFS, YARN, Job Tracker, Task Tracker, Name Node configuration, Data Node configuration, Spark Cluster, HA (High Availability), fault-tolerance, NoSQL, Autosys, Functional Programming, Confluent Kafka, Apache Zookeeper, Apache Oozie, Spark Streaming, Machine Learning algorithms, OLAP, OLTP, Big Data, Sqoop, Maven, SBT, Nexus, Git, Spark Standalone, Cassandra cluster configuration, Cassandra performance optimization, Cassandra Table Design, API Gateway Design, Spring Boot, Spring Batch, Java, OAuth, Stateless API Design, Cucumber testing, Agile/Scrum, Google Cloud Platform(GCP), Google BigTable, Google BigQuery, Google Cloud Storage, Google DataProc, Google CloudSQL, BigQuery ML, Google Cloud Pub/Sub, Google Cloud Spanner, Google Cloud Functions, GCP StackDriver, ElasticSearch, Avro, Parquet, ProtoBuf

Tech Lead, Machine Learning, Data Analytics I&TS at RBC

September 2016 - May 2018 (1 year 9 months)

Apache Spark 2.0, Scala 2.11, Spark Streaming, Scala RDD, Distributed Systems, Hortonworks Data Platform(HDP), Apache Ambari, Kerberos, KRB5 configuration, HBase, Hadoop, SparkSQL, Real Time Streaming, Checkpointing, Name Node Configuration, Data Node Configuration, Edge Node Configuration, NoSQL, Java, Functional Programming, Big data, Hadoop MapReduce, Spark Cluster Configuration, BASH shell scripting, Kerberos configuration, Resource Manager(YARN), Apache Kafka, Kotlin, SBT, JDBC, Oracle, Linux, IntelliJ Idea, ActiveMQ, GIT, Agile/Scrum, Spark Dataframe API, Datameer, Hadoop, Hive on Tez, Tungsten, Hadoop Distributed File System(HDFS), Job Tracker, Task Tracker, HBase, Solr, ElasticSearch, Cassandra, Cassandra Query Language(CQL), Python, PySpark, PySpark DataFrame API, Oozie, Big data, Hadoop Multi Node Cluster Configuration, BASH shell scripting, Splunk, Splunk logging, Ansible, Dev-ops, Docker Container, Maven, JDBC, Apache Nifi, Nifi Custom Processor, Sqoop, Linux, Machine Learning Algorithms, Support Vector Machines, Supervised Learning, Clustering, Random Forest, Spark Machine Learning Library(ML Lib), Data Science, IntelliJ Idea, Akka, scalamock, GIT, Agile/Scrum, Seasonal Trend Decomposition, Linear Regression, Principal Component Analysis, Linear Dimensionality Reduction, Linear Discriminant Analysis, Feature Reduction, Feature Selection, Neural Networks, Deep Learning

Senior Big Data Architect at Scotiabank - Global Banking and Markets(Scotia Capital)

October 2015 - September 2016 (1 year)

Apache Spark 1.6, Scala 2.11, Scala RDD, Spark Dataframe API, Distributed Systems, Jupyter Big Data, Hortonworks Data Platform(HDP), Apache Ambari, Hadoop, Hive on Tez, SparkSQL, Tungsten, Hadoop Distributed File System(HDFS), Job Tracker, Task Tracker, Name Node Configuration, Data Node Configuration, Edge Node Configuration, NoSQL, HBase, Solr, ElasticSearch, Cassandra, Cassandra Query Language(CQL), Java, Python, PySpark, PySpark DataFrame API, Airflow scheduler, Oozie, Apache Flume, Functional Programming, Big data, Hadoop MapReduce, Hadoop Multi Node Cluster Configuration, Spark Cluster Configuration, Django, BASH shell scripting, Kerberos, Resource Manager(Yarn, Apache Mesos), Docker Container, Apache Kafka, Maven, JDBC, PostgreSQL, Sqoop, Linux, Machine Learning Algorithms, Support Vector Machines, Supervised Learning, Clustering, Apache Mahout, Spark Machine Learning Library(ML Lib), Data Science, IntelliJ Idea, Akka, Spark Streaming, GIT, Capital Markets, Agile/Scrum, Social Network Analysis(SNA), GraphDB, Neo4j

Senior Software Developer at Toronto Stock Exchange

January 2015 - October 2015 (10 months)

Building a high performance trading and risk management engine that trades over the counter (OTC) derivatives using core Java and JBoss CDI framework. Developed messaging middleware (EIP, ActiveMQ, JBOSS EAP) to integrate with external systems (UnaVista-SOAP over JMS, EuroClear-FTP-based SWIFT and Razor-proprietary JAXB over custom HTTPS). Built a distributed cache framework using Hibernate second level cache and Jboss. Designed and developed the business logic and DAO layer of performance-intensive system in core Java. Developed a generic framework to support pagination based on Criteria Query API of Java Persistence API. Implemented JSON server side portal endpoints.

Senior Software Developer at Quickplay

June 2014 - January 2015 (8 months)

Java, J2EE, Hadoop, Hive, Hue, Hortonworks Data Platform, XML, XSLT, Spring, Android, Oracle Weblogic, JavaScript, Spring Framework, JSON, Jackson

Senior Software Developer, Software Loading and Device Management, R&D at BlackBerry

June 2013 - June 2014 (1 year 1 month)

Blackberry Handheld Applications: Software Loading Replication & Protocols R&D:

Developing handheld software loading and update infrastructure applications for Blackberry 10 smartphones.

Developing server side applications responsible for secure software updates for all active Blackberry devices.

Developing high throughput RESTful java web services to be accessed by all active Blackberry smartphones.

+ some secret stuff

Technologies used:

Java 7, J2EE, High Scalability, Low latency, High throughput, Spring, Spring Annotations, Oracle Stored Procedure, PL/SQL, Java Message Service(JMS), Multi-threaded Java, Java Concurrency, High performance computing, Parallel programming, Object Relational Mapping(ORM), Hibernate, Mobile Device Communication Protocols, Blackberry SDK, RESTful web services, Linux, Cygwin, Distributed Systems, QNX, Spring transaction, XML, XSLT, XPATH, JAXB, JIBX, Maven, Jenkins, Spring tool suite, Shell scripting, Blackberry 10 applications, Elastic search, NoSQL, MySQL Galera Cluster, Jersey, Jackson, JSON, Postman, HTTP, GIT, Gerrit, Perforce, Apache Tomcat 7, Distributed Java Virtual Machines(JVM), JAXP, SAX Parsing, Junit, XSD, XML schema, ActiveMQ, Spring security, Spring annotations, sl4j, Mockito, memcached, Ehcache, MariaDB, JAX-RS, Spring Aspect Oriented Programming(AOP), Log4j, Apache Lucene, Solr, EJB, Java NIO, Oracle WebLogic, Android DoubleClick ad API, Android 4.4, JavaScript, MongoDB, Hadoop, Apache Hive, Hue, Talend Enterprise Big Data, Pig, Mahout.

Tech Lead, Market Risk Analytics at RBC Capital Markets

May 2012 - June 2013 (1 year 2 months)

Royal Bank of Canada Capital Markets : Trading and Market Risk

Wrote a web application in Groovy on Grails and Java using Hibernate as the ORM. Configured the application in using Spring. Designed and developed the SQL server database. Deployed in Tomcat in Linux.

Wrote stored procedures and triggers in SQL. Designed and developed an ETL (Extract-Transform-Load) tool in Java to get data from several databases and run Pattern Recognition algorithm on it.

Designed and developed several Pattern Recognition, Machine Learning and Business Intelligence algorithms in Java. Wrote korn shell scripts for the deployment and run time configuration of the application. Deployed and wrote scripts in Tomcat and WebSphere.

Wrote scripts in unix and in Tidal Enterprise Scheduler for run time configuration. Used Apache poi Java API to generate Microsoft Excel reports from the transformation phase.

Technologies used:

Java, Java Enterprise Edition(J2EE), JAXB, JMS, ActiveMQ, JPA, Hibernate, Hibernate Query Language, JAXP, Spring, Spring Annotation, JSP, Servlet, Groovy, Groovy on Grails, Javascript, CSS, jQuery, JDBC, Microsoft SQL Server, SQL, T-SQL, Linux, Shell Scripting, BASH, KSH, Perl scripting, Solace Java Message-Oriented Middleware, Tidal Enterprise Scheduler, Autosys(JIL), Maven, Apache Ivy, Apache ANT, Apache Tomcat, WebSphere application server, Machine Learning Algorithms, Spring Tool Suite, XML Schema, XSD, DTD, XPath, SOAP, RESTful Web Services, Design Pattern, Hadoop, NoSQL, MongoDB, Apache Mahout, Spring Transaction.

Software Engineer at Sandvine

September 2011 - May 2012 (9 months)

Extracted huge unstructured data from a Policy Traffic Switch which does deep packet inspection of huge network systems and developed different machine learning and statistical models to make sense of that huge unstructured data pool.

Wrote the transformation phase of an Extract Transform Load application to extract data from PostgreSQL database and developed different MicroStrategy data model to load data in the Business Intelligence Server. Designed and developed databases and wrote stored procedures and database triggers.

Deployed application in WebSphere and configured and performance tuned using IBM WebSphere Admin tool. Used Service Oriented architecture to develop SOAP and RESTful web services using J2EE web services components(like JAXB, JIBX).

Implemented database layer functionality with Object Relational Mapping tools like Hibernate with JPA specifications. Developed the whole application in Spring framework and used different modules of Spring including Spring security, Spring annotations, Spring IOC, Spring MVC and Spring AOP, Spring DAO.

Extracted and transformed huge amount of network protocol level unstructured data and developed Machine Learning algorithms to run on them.

Technologies used:

Java, J2EE, Spring MVC, Spring IOC, Spring Annotations, Multithreaded Java, MicroStrategy, Flex, CSS, JavaScript, Struts, JSP, Unix, FreeBSD, Shell Scripting, Perl Scripting, Big Data Analytics, Linear Regression, Clustering, Unsupervised Learning, Data Mining, Data Warehousing, Object Oriented Perl, Computer Networking, Network Policy Control Language, Policy Traffic Switch, C,

Deep Packet Inspection, PostgreSQL, Microsoft SQL Server, T-SQL, Stored Procedure, Database Trigger, Object Relational Mapping, Hibernate, SOAP web services, RESTful Web Services, JMS.

Software Developer, Blackberry Enterprise Server R&D at Blackberry

September 2010 - September 2011 (1 year 1 month)

- #Implemented different web services and integration layer functionality of BES in Java Enterprise Edition (J2EE). Designed and developed MS SQL Server 2008 databases
- #Wrote stored procedures and triggers in SQL. Designed and developed an ETL (Extract-Transform-Load) tool in Java to get data from several databases and run Pattern Recognition algorithms on it and then process the data with Business Intelligence server(MicroStrategy).
- # Designed and developed several Pattern Recognition, Machine Learning and Business Intelligence algorithms in Java
- # Developed an Automated Component Test Framework for components of BES in Java & Groovy
- # Implemented a XML Data Generator in Java and then fill XML templates with those generated data
- # Implemented Java Web Services to send SOAP messages to different components of BES
- # Designed and developed a database in SQL server 2008 for our framework
- # Written XSLT to transform XMLs to Google's Robot framework's consumable format
- # Implemented a Tomcat web service in Groovy using Groovlets to query data from Rally(Agile development website)web service and then publish our own web service
- # Implemented an Apache Tomcat 5.1 web service in J2EE using Java Servlets
- # Written a Domain Specific Language in C++ to manage Branch Integration in Perforce
- # Replaced ANT with a new generation Automated Software Build Process System called Gradle for highly critical BlackBerry Enterprise Server Continuous Integration Build System
- # Implemented a "Pre-Flight" Build System for BlackBerry Enterprise Server CI Build, resulting 65% less build failure affecting almost 80 developers

Technologies used:

Java, Perl, Python, Jython, Java Enterprise Edition(J2EE), JAXB, JMS, JPA, Hibernate, JAXP, Spring, JSP, Servlet, Gradle, Groovy on Grails, Javascript, CSS, jQuery, Selenium, JDBC, SQL Server, SQL, T-SQL, Linux, Shell Scripting, BASH, KSH, Maven, Ivy, ANT, Apache Tomcat, XML, XSD, XPath, SOAP, RESTful Web Services, Design Pattern, XSLT, Cruise Control

Research Associate, Machine Learning Lab at University of Windsor

September 2009 - September 2010 (1 year 1 month)

Pattern Recognition and Machine Learning Group, Department of Computer Science:

Implemented various Data Mining & Pattern Recognition algorithms in Java and C++

- # Implemented various Machine Learning classifiers in Java and MATLAB
- # Wrote scripts in Python,Perl,C Shell for feature generation for classification

Proposed an algorithm to increase Multiclass Classifier classification accuracy & wrote research papers

Graduate Teaching Assistant, Department of Computer Science in

- 1)Object Oriented Programming in Java(Fall 2009)
- 2)Data Structure and Algorithm using Java(Winter 2010)
- 3)Computer Architecture:Digital design(Summer 2010)

#Taught programming concepts in lab sessions and during tutoring hours.

#Prepared assignments and quiz questions.

#Evaluated assignments,quizzes,midterms and final exam papers.

#Helped professors to prepare course material and final exam questions.

Technologies used: Java, Python, Perl, C++, Machine Learning, Statistical Pattern Recognition, Weka, Matlab, Natural Language Processing, Shell Scripting (C Shell, Korn Shell, BASH)

Machine Learning Researcher, Microelectronics Division, R&D at Saha Institute of Nuclear Physics
February 2009 - September 2009 (8 months)

Developed Machine Learning algorithms for automated detection of cancerous liver from Ultrasound images

Implemented the algorithms in Java and user interfaces with Java Swing and AWT package

Implemented various Image processing(Pattern Recognition and Machine learning) and Data Mining algorithms in Java and C++

Technologies used: Java, J2EE(Java Enterprise Edition), JAXB, JAXP, JMS, Java Swing, JSP, JDBC, JavaScript, Microsoft SQL Server, C++, Matlab, Statistical Pattern Recognition, Machine Learning, Natural Language Processing, Image Processing, Korn Shell, Digital Signal Processing

Software Developer, Co-op at Computer Society of India

May 2008 - August 2008 (4 months)

Developed a Secure Web Based Bus Reservation System with integrated fare management system as well as e-ticketing while also including modules like Internet booking system, frequent traveler database in Java Enterprise Edition architecture.

Coded in JSP and every logical layer in Java Enterprise Edition(J2EE) architecture

Designed and developed a database in Oracle 8i

Technologies used: Java, Java Enterprise Edition(J2EE), JAXB, JMS, JPA, JSP, Servlet, Javascript, CSS, JDBC, Oracle 8i, SQL, PL-SQL, Linux, Shell Scripting, BASH, KSH, Perl scripting, Java Message-Oriented Middleware, Maven, ANT, JBOSS, XML Schema, XSD, DTD, XPath, SOAP, RESTful Web Services, Design Pattern

Programmer Analyst, Co-op at Globsyn Infotech

May 2007 - August 2007 (4 months)

- # Developed a Car Dealership Automation System with Inventory Management System, Invoicing System and Parts Inventory System and Customer Tracking Database
- # Coded in C# and developed in ASP.NET architecture, that interacted through ADO.NET with our backend database SQL Server 2005
- # Designed and developed a database in SQL Server 2005
- # Designed user interface with Windows Forms Designer and Toolbox.

Education

University of Windsor

M.Sc.(Thesis), Computer Science, Research: Machine Learning, 2009 - 2010

Activities and Societies: Graduate Student Society, Computer Science Student Society, ACM, V.I.S.A

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LinkedIn® Recruiter

4 people have recommended Sridip

"Sridip has always been an absolute please to work with. He is a highly motivated and knowledgeable software developer. His attention to detail is evident in the high quality of his work. He provides great value to this team with his contributions."

—Brad Fach, Senior Principal Software Engineer, NetSuite, managed Sridip at BlackBerry

"One of smartest developers I've ever met. Grand respect!"

—Philip Posvaliuk, Senior Software Engineer (contract), HSBC Global Banking and Markets, worked directly with Sridip at Toronto Stock Exchange

"In the world of Data Engineers focusing on software development and Data Scientist focusing on analytics, Sridip stands-out as being able to play both roles. His ability to drive insights into business value and then execute on it is what I would hire him for. "

—Jakub Kolakowski, Director, Engineering Transformation, RBC, managed Sridip at RBC

"Sridip is a smart big data developer. He was the go to guru for any tough technical challenges we faced in Spark, Scala, Hadoop..."

—Brijesh Jaggi, Kafka Architect, IBM, worked directly with Sridip at RBC