

CEO/Owner CEO/Owner Full Stack Programmer/Architect/Big Data/Cloud/Blockchain Developer  
Washington, DC Experience in architecture and implementation of systems to handle massive parallel datasets on large clusters involving Hadoop, Spark and related big data technologies. Hand-on Hadoop platform experience - Both Administration and Development Hands on experience in performing analytics on complex datasets- implement statistical calculations, build models, apply algorithm and train the systems. Extensive experience in Java, Python, R, and shell scripting (Linux). Expert in implementing complete software life cycle, including design, architecture, development, testing of many projects using various Object-Oriented technologies- Java/EE, Python and .Net and Service Oriented Architecture. Expert in extracting relevant features from a large dataset available in a wide range of possible structured and unstructured formats. Specialized in translating business requirements into data workflows. Experience with multiple Blockchain platforms (Ethereum/Hyperledger). Experience in design and development of the corporate operation data store and enterprise data warehouse environment, mainly Oracle, Netezza, Redshift, MySQL and Hadoop. Mentor, team lead and team player. SKILLS IN TOOLS, TECHNOLOGIES AND STANDARDS: Big Data: Hadoop, HDFS, MapReduce, Apache Pig, Sqoop, HBase, Hive, Oozie, Flume, Kafka, IBM Big Insights, Spark, Spark Streaming, Hadoop streaming, Watson Explorer, Solr, BigSQL. Text Analytics: Python, R, GATE, NLP, Mahout, AQL, JAQL, SystemT, SAS, Supervised and Unsupervised learning algorithms, Chatbots development. Software Development: Python, Scala, Django, Core Java, Java Enterprise Edition, SDLC, Spring, Struts, Hibernate, JDBC, SOA, Web Services, Django, Anaconda, Oracle BPEL, ESB, XML, HTML, JSP, AJAX, JSON, AngularJS, JQuery, Design Patterns, UML, Visio, ANT, Maven, Continuous Integration, Jenkins, Splunk, Wily, Application Servers, Application Security, Business Objects, Windows, Shell Scripting, Ethereum, Hyperledger, Linux. Databases: Oracle, PostgreSQL, MS SQL Server, MySQL, Netezza, Redshift, Cassandra. Operating System: Linux, Windows Management Methodologies: Waterfall, Agile (Scrum), Test driven development Authorized to work in the US for any employer Work Experience CEO/Owner Fenugreek Tech LLC May 2017 to Present Company's Services and Expertise: Big Data Development, System Administration,

Blockchain development, Enterprise Software development and support      Development of infrastructure and software solutions (Short term and long term).      Support small and medium-sized projects.      Designing Enterprise data warehouse.      Data warehouse administration and support.      Developing architectural roadmaps and guidelines.      Building proof of concepts.      Setting up private blockchain and deploy smart contracts on Ethereum using Solidity.      Facilitating effective staff handover.      Provide customized technical training to employees based on current work environment.

**Technologies**      Big Data      Hadoop, Spark, Enterprise Software Development      Java, Scala, SOAP/Rest Web Services, Enterprise Data Warehousing      Oracle, Netezza, Hive, and Blockchain development      Hyperledger, Ethereum, Solidity, JavaScript, NodeJS, Python.

**Python Developer February 2017 to Present**      Implement process to pull information from Zoom Rest APIs into PostgreSQL to be utilized by Power BI.      Implemented Python ETL solution that authenticates through JWT and transforms the information.      Fine tuning of the code to overcome Zoom Rest APIs maximum hit and timeout limitations.      Implement detailed logging; created design document, deployment guide and runbook.      **Technologies:**      Python, JWT, Zoom Rest APIs, virtual env, PostgreSQL, Linux, GIT.

**Lead Big Data Developer/Admin; Software Developer/Architect September 2013 to Present**      Led multiple short-term and long-term projects related to development efforts and environment support for Big Data unstructured platforms within Enterprise Data warehouse. Always hands on.      Managed co-ordination with client, architects, managers, higher management, onsite, remote and various cross-functional teams.      Provided hands-on technical assistance working with developers, DBAs, data architects and data quality analysts, and other teams with the following tasks:

- o Full administration support, including Hadoop cluster design, implementation, maintenance, enhancement and troubleshooting.
- o Develop, maintain and support projects using Big Data technologies specifically Hadoop (MapReduce and Java), Spark and its various other eco-systems (hive, pig, hbase, oozie, sqoop), IBM Data Explorer, BigSQL, IBM Big Insights, Python, Scala, Netezza, and other external databases such as Oracle. Supports adhoc analysis/data/code requests which require immediate solution.
- o Create project proposals, project plans, risk planning, detailed design, write code and assist in writing code, conduct code reviews, perform testing, deploy and

provide production support. o Support multiple Petabytes Hadoop cluster and IBM data explorer servers. o Complex jobs development with custom record readers and complex regular expressions. Utilized R and Big Sheets for adhoc data analysis/reporting. Design, develop, and implement Big Data analytic solutions. Taking the solution to full project life cycle including analysis, design, unit test, UAT, pre-prod testing, 508 testing, security testing and prod promotion. Data extraction from various structured, semi-structured and free-text filings. Create custom analytic and data mining algorithms to help extract knowledge and meaning from vast stores of data.

Refine data processing pipelines focused on unstructured and semi-structured data refinement  
Designed and development system to cleanse and analyze complex EDGAR unstructured filings and collect meaningful information in form of tables, big sheets, dashboards and reports. Worked on complete life cycle from data exploration, visualization and cleansing, to fitting into model and present the findings to analysts and business. Develop webservice to make cleansed data available. Analyzed Whistleblower complaints by utilizing natural language processing techniques (sentimental, coreference, etc.) in conjunction with Hadoop. Cleansed, exchanged and federated data received monthly (About 40 TB/Month) among Netezza, Hadoop and remote filesystem. Built and upgraded Big Insights/Hadoop cluster (multiple times) and IBM Data explorer servers  
Implemented security structure, authentication mechanism (LDAP/IDM) and user provisioning strategies for the Hadoop Cluster Performed R-Integration with Hadoop to support statisticians and economists Reviewed, benchmarked and performed performance tuning of the implemented jobs within Hadoop cluster Create custom analytic and data mining algorithms to help extract knowledge and meaning from vast stores of data. Refine data processing pipelines focused on unstructured and semi-structured data refinement. Automated testing of ETL/ELT solution as well as performing quality assurance for the deliverables. Performed test driven development. Hands on development on critical, high visibility projects. Technologies Used: IBM Big Insights/ Hadoop, HDFS, MapReduce (map/reduce/custom record readers), Java, HBase, Oozie, Pig, Hive, Streaming, Zookeeper, Sqoop, Flume, SystemT, JAQL, AQL, Spark (Scala/PySpark), Ambari, YARN, Knox, Flume, Kite, Slider, Watson Explorer, GATE, NLP, Mahout, PdfToHtml, Big sheets,

Linux, Shell Scripting, xCat (cluster management), IMM, LDAP/IDM, Knox, R, R Studio, Python, SAS, Netezza, Infosphere Information Server, Oracle, Virtual Desktop Infrastructure, TDD, Visio, UML. Enterprise Web portal /Chatbot Developer March 2017 to March 2018 Database development and reporting for the Enterprise Services Portal, that serves various infrastructure sources, including Virtual Desktop Services, Citrix, Active directory and other database platforms in-house. Development of the MS SQL Server based data repository, receiving feeds from Citrix, Active Directory, other databases, filesystems and Sharepoint. Chatbot development to support Virtual Desktop Services' operations. The chatbot utilizes AIML as well as decision trees/NLP to respond to its customers. Web-scraping information and downloading of files from password protected HTML and Angular/Javascript rendered websites, so that the information can be utilized by Chatbot for its responses. Worked on the enhancement of the AI chatbot available to thousands of IT employees to help them automate manual storage-related tasks. Perform Quality Assurance and Testing for the project deliverables. Technologies: Python, NLP, AIML, Machine Learning, .Net, Java, SQL Server, TSQL, SSIS, SSRS, GIT integration, Windows. Data Scientist/Data Warehouse Engineer May 2016 to October 2017 Perform data integration, data architecture, information delivery, infrastructure, testing, performance tuning for all components of the project. Develops practical and workable solutions to clients' technical and business problems.

Analyzes requirements and potential solutions for technical and economic feasibility. Develop statistical models for the students' assessments and surveys, and the external datasets to support the findings of the surveys. (Survey analysis, Jackknife, Significance testing) using R and Python. Improve upon current methods for the automated processing and exploitation of large data sets. Design, develop and advance new methods to extract information from diverse data sources using flexible querying methods, innovative visualization, and data aggregation/integration, data mining and analytical techniques. Extract information from variety of sources including spreadsheets, text and pdf documents, web pages and images. Technologies Used: R, Shell scripting, Python, SOLR/Banana, Elastic MapReduce, Hadoop/Spark, Redshift, D3, Pentaho/Kettle, R, Amazon RDS, MYSQL, Redshift, .Net, SQL Server, IIS, AWS. Lead Software Architect March 2015 to April 2016

Leading an effort to building the next-generation, 360-degree custom Enterprise Information Portal. The portal is being flexibly designed to eventually combine the information and data from several systems within Enterprise Data Warehouse and beyond, and presents the information to the user in a single, dashboard-and-search engine style view. The product has been built completely from scratch, without any aid of similar COTS product available in the market. Responsibilities:

Planning and managing technology development activities for large scale modernization projects.

Working as hands-on team lead for the Enterprise Information Portal and Search Engine projects.

Architect, design, develop, lead and assist other developers and tester in the team. Leading the entire software development life cycle for EIP at USPTO from prototyping to project approval, and from requirement gathering to production deployment of the final product. Assisted client in understanding opportunities within the system and building up the requirements through examples, working prototypes and the technology overview. Successfully developed the working prototype of EIP as a proof of concept within limited timeframe, and received approval for the first phase of the product.

Integrated Business Objects and Cassandra (NoSQL) with Enterprise Report Portal (EIP) to provide one-stop shop to analyze documents and reports from multiple sources, create personalized widgets and dashboards, dynamic role based menus and page views, mark favorites and recent, perform federated search on Business Object and Cassandra (through SOLR), establish announcements and alerts, and administer and schedule business objects jobs.

Developed a flexible, loosely coupled EIP solution by utilizing Angular JS, REST Web Services, SOAP Web Services, Hibernate with Oracle.

Implemented Single Sign On and developed authorization framework based on Enterprise Data Warehouse Security model.

Compared candidate technologies, established architecture and design, built logic for all use cases, performed hands on development, as well as assigned tasks to developers within team to implement use cases by providing detailed steps to follow.

Lead daily huddle, bi-weekly demos, client presentations and meetings.

Assist developers in implementing an enterprise PPA Search to search Oracle Data Warehouse by utilizing technologies such as AngularJS, JQuery, REST Web services, MyBatis and Oracle Text Search.

Implemented ARIA for Angular JS, and tweaked default libraries for

AngularJS and JQuery to comply with 508. Provide schedule and timelines, perform review, and analyze runtime of the code. Utilized maven for compilation, SVN as code repository, Jenkins for continuous integration. Established local maven repository for the Business Object libraries.

Activity involved in proposal writing for the Big Data initiatives. Technologies Used: SOA, Java, JEE, Python, SOLR, Oracle 11g DB, Oracle 12C, Cloudera/Hadoop, Cassandra NoSQL, Oracle Text Search, SOLR, RESTful web services, SOAP Web Services, Hibernate, MyBatis, Business Objects SDK, JSON, XML, JQuery, Angular JS, JSP, Maven, Jenkins, SVN, SQL Developer, Visio, Eclipse, Big O, JUnit, JAWS. Engineer/Architect May 2013 to September 2013

JEE SME providing architecture alternatives to improve scalability, availability and reliability of the system

Re-Architect device discovery mechanism for the Ultra Vision Management System for enhanced performance

Re-Designing the multithreading model for Ultra Vision

Worked with the Senior Management and VPs to establish technology strategy at an application level. Worked with system owners, business owners, technical teams, and functional teams to deliver software solution

Establish high, mid and micro level plans and set technical direction for the project

Lead the estimation effort for the project and work to identify and manage risk

Responsible for delivering Architectural and Design documents

Hand on development for Java-based middleware for a spectrum management system and for a loosely formed wireless sensor network.

Design and implement a Java/Flex/ESB middleware pilot for integrating sensors and collecting data for Naval vessel boarding inspection systems with Geospatial tracking for Sensor Locations

Provide a consultative approach in understanding the business need and translating them to the data flow, logical, and physical data models.

Worked on Integration of Next Generation 3eTi devices into the existing Network Operating Management System

Mentor other team members to bring them to speed. Assist developers and analysts

Performed quality assurance, technical support and release management for certificate generation system. Technologies Used: Java, JEE, JSON, Adobe Flex, Python, Rest Web Services, HTTP Post, Multithreading, Executors, Singleton, Linked Queues, Mule ESB, Google Maps, KML, Bamboo, Quartz Scheduler, MIB Browser, Wireshark, GNU Plot, yFiles, SNMP4j Query, Erwin, XML, STunnel, Linux, VMWare. Senior Programmer Analyst January 2011 to June

2012 Identify opportunities within enterprise systems for improving customer experience and provide proposals. Driving the project through its life cycle from project initiation, project control and project closure. Active communication with related teams in order to identify and streamline impacts on enterprise system communication touch points Identify trends in incoming customer data and generate reports. Ensure that developers within team and other involved teams adhere to the agreed upon architecture, technologies, design and software quality standards for the applications under consideration. Gather requirements, analyze, architect and design Enterprise applications. Development, enhancements and production support for the enterprise applications, working as key developer on the project along with other junior developers. Act as a mentor for other developers within team and provide them guidelines in order to improve their skills and adopt better development practices to deliver overall better quality product. Seek the opportunities of improving the existing software development process to be able to produce software of the highest possible quality in the fastest possible time. Maintain project documents: Charter, Requirement, Architecture and Design, Test Plans, Release documents. Redesigned the existing basic email notification system to act as central hub and decision maker for automated claims customer's communication in form of emails, automated text messages and/or consolidated emails (all in one) based on the pattern of Claim activities and failover scenarios. Provided proposal, system architecture, design, and task distribution and worked as lead developer. Development of mechanism for automated health monitoring of various application modules. Successful continuous enhancements of the system as well as notifications based on data trend analysis, review and research of existing communication system in order to provide better customer experience. Technologies Used: Java, .Net MVC, TFS, JEE, JSF, JMS, JDBC, Web services (Apache-Axis), Oracle 10g PL/SQL (SQL, aggregated functions, procedures), Eclipse, Perforce, JIRA, Wily, HPSA, Enterprise Architect tool, Linux, JBOSS, Log4j, MBLOX, .Net (C#), SCRUM, Wily

J2EE/BPEL Consultant July 2010 to January 2011 Provide design for Java enhancements, bug fixes and develop Java and Oracle BPEL components. Propose different architecture alternatives and provide comparisons to Directors. Participate in requirements gathering and design for each

release and collaborate with development team to design and implement enhancements and fixes.

Assess and assimilate new technologies and determine their impact/implications for existing software infrastructure. Participate in development/troubleshooting of Java and Oracle BPEL components as needed. Keep abreast of enterprise architecture guidelines related to Java and Oracle BPEL. Apply Linux/UNIX expertise to work with the external interface components as needed. (Shell scripting, server management., etc.) Primarily working on analysis, design and development of Oracle BPEL process workflow, WS-Security implementation with BPEL / web-services and SFTP (with FIPS Complaint cryptography) implementation. Technologies Used: Java, JEE, SOA, Oracle Application Server 10g, Oracle BPEL Server, SFTP, OpenSSH, Tectia Connect Secure, WSSE, WS-Security, WSS4J, Oracle Advanced Queue, JAXB, Shell Scripting, XMing, Linux, StarUML

Programmer Analyst July 2009 to July 2010 Provide in-house Java/J2EE applications to allow easy data migration into the Global CRM software. Involved in enhancements/creation of new modules for Global CRM application. Front-end development involves HTML, XML, Velocity, JSON, JavaScript and CSS. Business logic is implemented in Java and core structure is based on spring framework. Involved in creation and deployment of ESB web services which serve transactional and master data exchange among Global CRM and other systems through JBoss enterprise service bus (ESB). Involved in creation and design of JAX-WS web services to formulate incoming XML from another business application into CRM reports. Bindings between XML schemas and Java representations are provided by JAXB. Developed .Net Web services (WCF) for one of the largest clients of the division, accessed by Global CRM application over secured socket link (SSL). The web services are fed by SQL Server database and deployed on IIS. Configuration and troubleshooting multiple JBoss server instances and corresponding windows web services. Involved in Quantitative Analysis and Structured Database Analysis of customers to advance responses for client and marketing initiatives. Designed and programmed applications in object-oriented paradigm making proper use of encapsulation, inheritance, polymorphism and common design patterns such as factory, singleton and facade. Implemented persistence layer with hibernate integrated with spring. Attached hibernate filters at



both a class and a collection level. Use JIRA for issue tracking and agile project management (Green Hopper Plugin). Integrated with Eclipse using Mylyn for generating notifications for developers within Eclipse IDE. Run services to synchronize oracle based catalogs with Global Application catalog. Involved in writing stored procedures and complex queries. Responsible for testing the application. Technologies Used: Java, JEE, Spring, Spring MVC, Hibernate, Velocity, Web Services (JAX-WS, CFX, Apache-Axis 2, ASP.Net, C#), JAXB, Lotus Notes, Linux, Windows, SQL Server, Toad, XML, Eclipse, Maven2, Astah(JUDE), VS 2010 UML Generator, JIRA, Mylyn, CVS, Green Hopper, Visual Studio 2008, PostgreSQL, IIS, Shell Scripting, XMPSPy, Cygwin, SOAP UI, Hudson/Jenkins. Sr. Software Developer September 2008 to June 2009 Developing the initial Business and Technical Design. Involved in the creation of Use Cases for the analysis as well as the design using Rational Rose and developed detailed Design document. Implemented the Data Tables in JSF using advance features. Implemented other components with JSF such as validators. Used JSF with facelets instead of JSP, worked with jasper reports. Developed hibernate-mappings, persistent classes, including association, inheritance, polymorphism, composition and the Java collections framework. Implemented the Architecture using spring framework for DelegatingActionProxy to Struts framework. Used Ant Script for performing automated build for the project files and apache tomcat server for deploying the application. Involved in the application development using Struts which is Model View Controller (MVC) based architecture, developed Action Classes, Form beans. Created Ajax enabled image components. Involved in technical and functional documentation. Involved in writing stored procedures and SQL queries in Oracle PL/SQL. Involved in invoking web services using JAX-WS and Apache-Axis. Deployed the application on Web sphere application server. Responsible for testing the application. Technologies Used: Java, JEE, Struts, spring, JSF, Hibernate, Ajax, Oracle, SQL, PL/SQL, Jasper Reports, XML, JavaScript, CSS, DHTML, Apache-Axis, Windows, RHEL 6, Dom4j, UML. WebSphere, Rational Rose, Jasper Reports, Microsoft Visio Technical Manager January 2007 to August 2008 Managed .Net and Java based applications. Worked as a mentor for developers and resolved technical issues faced by team. Involved in the detailed design of various layers of

the application. Involved in writing .Net applications making use of peripheral devices such as camera, barcode readers, thumb digitalizes and printers. Analyzed the Customs application for performance and removed performance bottlenecks. Developing the user interfaces using JSP. Involved in developing several servlets that processes data, from filled out JSP/HTML forms. Designed the application with UML. Several reports and bills are generated using Crystal Reports.

DAOs, implemented in java, are used to retrieve data from Oracle database. Written PL/SQL stored procedures, functions, triggers. Developed XML documents for data transfer between the web clients and the server. Involved in verification of application request and updating application status to/from central server and ensures request resubmission in case of network failure. Ensure timely retrieval/ updating of information to make records available for other Regional Offices.

Co-coordinated with Testing Manager for preparation and execution of system test plans & data.

Base lining coding standards and best practices. Technologies Used: Core Java, J2EE, .Net, Crystal Reports, Windows, UNIX, Shell Scripting, Passport Reader, PostgreSQL, Oracle, Camera, 2D Bar Code Reader. Engineer/Technical Manager August 2004 to January 2007 Worked with Employee Management System, Consolidator, Data Importer, and Helpdesk Software to allow data consolidation and monitoring of employees, timesheet management employee-data analysis and reporting, and evaluation of employee annual conduct reports. Responsibilities Managed a team of 25+ members. Documentation of functional and technical requirements. Design components based on object-oriented design. Consolidate information from Multiple Sites to a Single Location for data warehouse. Developing reports for the consolidated information from swift registration centers. Designed to import data from one database to another. Used SQL Server 2000 as source database and MySQL as destination database. Used JDBC for source database connectivity and hibernate for destination database persistence layer. Java, C++, SQL Server, MySQL, Teradata, XML, UNIX, Oracle, Windows, Cisco Routers. Education MBA, MS Computer Science, BS Computer Science, MS Project Management Skills Python, Hadoop, Java, Scala, Web Development, Shell Scripting, Database Development, Quality Assurance, Project Management, Agile, Architecture, Big data, Artificial Intelligence, Data Science, Search Engine, Chatbot

development, Customer Support, Production Support, System Administration, Ethereum, Blockchain, Hyperledger, NodeJS, Solidity Certifications/Licenses Multiple Certification: Cloudera Certified Developer for Apache Hadoop EMC Data Science Associate Oracle Certified Master J2EE Enterprise Architect Sun Certified Web Component Developer EE 5 Sun Certified Java Programmer for J2SE 5.0 Other: MCSE 2003, CCNA 4 and MCDBA 2000 Training: Cloudera Developer Training for Spark and Hadoop Oracle, Architect Enterprise Applications with J2EE IBM Big Insights Infosphere Foundation (Hadoop Administration) IBM Big Insights Analytics for Programmers (Hadoop Text Analytics) EMC Data Science Associate Functional Programming Principles in Scala .Net Boot Camp Amazon Web Services (AWS) Architecture Additional Information Open to Remote/Part time - flexible Hours opportunities anywhere in US. Desirable time zones - Alaska/Hawaii/Pacific.

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