

DARRYL L. HEAD

• Pasadena, MD

• Sr. Solutions Architect • BIG DATA Engineer/Admin • PostgreSQL DBA

Technical Professional and Database Engineer with a proven ability to design, develop and modernize commercial, business, government, and federal big data applications across cloud-based and on-premises environments. Adept in ETL workflows, data migration, and optimization with advanced database technologies, including PostgreSQL, Greenplum, AWS and Azure based solutions. Proficient in collaborating with cross-functional teams using Agile/Sprint methodologies to deliver quality solutions.

PROFESSIONAL EXPERIENCE

Anika Systems

November 2023 – February 2025

Sr. IT Specialist (Data Architect)

- Collaborated in engineering modernization redesign for the Department of Treasury/IRS project to optimize data flow and processing systems.
- Collaborated in the orchestration of ETL ingestion and cleansing of data via pipelines into MS SQL Server using Agile/Sprint methodologies.
- Delivered medallion data warehouse architecture for MS Power BI and Power Platform tools, providing an efficient presentation layer solution for enhanced data visualizations, dashboards, reports, and semantic models.
- Improved end-to-end daily batch processing time from 3 hours to 1 hour, achieving a 67% increase in efficiency.
- Teamed to develop prototype Case Management system from manual data entry form digitizing and streamlining data management processes.
- Engineered AWS hosted RDS PostgreSQL database snowflake-schema derived from customer manual data-entry form capture.

Anika Systems

October 2020 – October 2023

Sr. IT Specialist (Sr. Solutions Architect)

- Partnered with **Accenture Federal Systems** supporting IRS in testing and re-engineering Greenplum Data Warehouse Appliance solutions for a new hardware platform migration.
- Integrated Cntrl-M, Informatica, and Greenplum within the end-to-end dataflow pipeline to support the IRS RRP system modernization, upgrade and platform initiatives.
- Developed and executed end-to-end (E2E), integration, and unit testing procedures, identifying critical exceptions and bottlenecks across data, system, and workflow processes. Post system upgrade incompatibilities reduced by 99% improving system functionality and reliability.
- Led data modeling and ETL development for a proposed prototype, leveraging JSON conversions, pivot decoupling, and advanced PostgreSQL techniques to enable seamless Robotic Process Automation (RPA) data ingestion, resulting in a 60% reduction in processing time.

Anika Systems

April 2017 – September 2020

Sr. IT Specialist (Big Data Engineer)

- Provided Big Data Solutions Architecture support with **Northrop Grumman via Dell-EMC** to enhance Greenplum Data Warehouse systems for the Department of Treasury/IRS.
- Engineered the successful migration of a 4PB Greenplum warehouse to a higher out-of-family database version (v5.x) with a complex unload/reload process.
- Designed and implemented a Proof-of-Concept plan for IPv6 utilizing Dual-Stack networking architecture within Greenplum DCA and Data Domain storage environments.
- Designed and implemented a prototype AWS RDS PostgreSQL database to streamline electronic government form capture, improving data workflow efficiency and retrieval accuracy.

Financial Industry Regulatory Authority - FINRA*March 2014 – February 2017***Lead Engineer/Admin (Big Data Engineer)**

- Collaborative migration of on-prem MPP Netezza and Greenplum data warehouses to AWS Redshift utilizing EC2 provisioning, S3, IAM, and CloudWatch Alarming.
- Worked with AWS engineers in re-platforming legacy Hadoop systems and other big data appliances to AWS cloud infrastructure.
- Developed a SPLUNK dashboard monitoring solution to track AWS Redshift performance and analyze query history, disk IOPS, and network performance.

TEKSystems*September 2011 – March 2014***Data Warehouse Specialist (Big Data Engineer) @ FINRA**

- Administered 24x7 support for Greenplum, Netezza, and Hadoop data warehouse appliance systems across production and disaster recovery environments.
- Implemented Linux shell scripts for automated backups, reporting and troubleshooting, ensuring optimal performance and infrastructure stability.
- Redesigned database objects on Greenplum and Netezza through repartitioning, data redistribution, and clustering. Optimized query performance, reducing memory and CPU consumption saving terabytes in storage.

Lockheed Martin IS & GS Security Cyber Solutions*May 2009 – August 2011***Capture Manager**

- Led competitive proposals for government contract efforts, including joint ventures, competitive analysis, and value proposition creation.

Principal Database Engineer/Tech Task Lead

- Supported DoD clients with 24x7 Oracle DBA enterprise operations, focusing on installation, migration, and troubleshooting within Unix, Solaris, and Windows environments.
- Engineered and deployed Oracle Application Server 10g AS, Oracle Identity Management Server (Infrastructure) with Metadata Repository, and Oracle Business Intelligence.

General Dynamics Network Systems*May 2005 – May 2009***Sr. Database Administrator – Oracle**

- Provided enterprise operational administration support for Oracle databases in production, development, and test environments across Unix and Windows platforms.
- Conducted backup, restoration, and migration tasks with RMAN and SQL scripting, ensuring system integrity and security.

EDUCATION AND PROFESSIONAL DEVELOPMENT

- **Bachelor of Science - Computer Science** - Edinboro University of Pennsylvania
- **Databricks Certified Data Engineer Associate** - 2023
- **Snowflake – SnowPro Core Certification (Cert ID: [REDACTED])** - 2021
- **AWS Certified SysOps Administrator: Associate, Linux Academy** - 2017
- **Big Data on AWS** - Amazon, 2015
- **CDH and Cloudera Manager for Hadoop Administration**. Cloudera Inc.
- **Netezza 7X Appliance Advanced Concepts**, IBM Corporation
- **Greenplum Database/Data Warehouse Administration**, EMC Corporation
- **ITIL V3 Foundation Bridge Certification**, EXIN
- **CompTIA Security+ Certified**, CompTIA
- **ITIL Foundation Certificate in IT Service Management**, EXIN
- **Microsoft Fabric Data Engineer - DP-700** (in progress)
- **Microsoft Power Platform Associate - PL900** (in progress)

TECHNICAL SKILLS

- **Databases:** PostgreSQL, Greenplum, Netezza, AWS Redshift, Oracle, SQL Server
- **Cloud Platforms:** AWS (EC2, S3, IAM, Redshift), Azure, Windows 365
- **Big Data:** Hadoop HDFS, Spark, Data Warehouse, Data Lakes, Lakehouses, Medallion Architecture
- **ETL/Integration:** Informatica, Cntrl-M, Data Pipelines, Dataflow
- **Programming/Scripting:** SQL, PySpark(Python), Spark SQL, Shell Scripting
- **BI & Tools:** Power BI, Apache Superset, Docker, SPLUNK
- **Operating Systems:** Linux, Unix, Windows
- **DB Tools:** dBeaver, SQL Developer, SQL Workbench, Toad, pgAdmin
- **Methodologies:** Agile, Scrum, Kanban
- **Security:** DoD SRR, DoD STIGs, Security Compliance and Vulnerability Remediation

SECURITY CLEARENCE

MBI – Pubic Trust (IRS) - February 2025

EARLIER EXPERIENCE

- Northrop Grumman Mission Systems (sector xfer): **Sr. DBA - Oracle** | September 1999 – May 2005
- Northrop Grumman Information Technology/TASC: **Sr. DBA - Oracle** | September 1999 – May 2005
- Keane Federal Systems, Inc.: **Principal Consultant** | October 1998 - September 1999