ALBERTO VINAROZ LÓPEZ-REY

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Senior Data Engineer with 5+ years of experience building and optimizing scalable data pipelines across Cloud and On-Prem environments. Expert in Apache Spark, Hadoop, and distributed data processing, with a proven record in performance tuning, data migration, and large-scale ETL workflows. A collaborative leader focused on driving data-driven business solutions.

Professional Experience

Paradigma Digital, Madrid

December 2023 - Present

Senior Data Engineer

- Data migration from the legacy EMIR system to the new REFIT platform, consolidating all historical data from ElasticSearch and SQL Server into a centralized Data Lake on HDFS and Kudu in Cloudera (On-Prem) for the Bolsas y Mercados Españoles (BME) client, significantly enhancing data accessibility and quality.
- Optimized data pipelines to reduce migration timelines by 30%, ensuring ahead-of-schedule project completion.

Pragsis Bidoop/Accenture, Madrid

June 2021 - December 2023

Data Engineer

- Developed a Spark application in Scala for Santander Bank's NIF 9 (IFRS 9) initiative, performing data transformations and generating accounting reports from daily Kafka ingestion streams into AWS S3. This approach leverages big data and data analytics tools to enhance credit risk management in alignment with IFRS 9 standards.
- Achieved a 60% reduction in execution time for both daily and monthly reporting processes through Spark tuning and optimization.
- Led BAU operations and resolved critical incidents, ensuring system stability and operational continuity.

Zennio Avance y Tecnología S.L., Toledo

February 2019 - June 2021

Software Engineer

- Developed an application that processes communication data between home automation devices and their Android/iOS control applications using Python and Spark for efficient ETL processes, enabling the transformation of data into dynamic, informative dashboards using Kibana.
- Developed a publish-subscribe application using AWS IoT's MQTT broker to synchronize data between Zennio home automation devices and their corresponding Android/iOS control applications, ensuring consistent data representation across devices and applications.
- Crafted responsive web applications with modern frontend technologies including HTML, CSS, JavaScript, jQuery, Bootstrap, and Angular.
- Built scalable backend services adhering to RESTful principles using Python, Java, and Node.js.
- Performed corrective maintenance on mobile applications via Android Studio to ensure optimal performance and reliability.

Education

Universidad Nacional de Educación a Distancia, Madrid

2019 - 2021

Master in Cybersecurity

Awards & Publications:

❖ Published "Cybersecurity Risks and Data Protection in the Era of Wearable Devices: A Forensic Approach" in the IEEE Internet of Things Journal.

Universidad de Castilla-La Mancha, Ciudad Real

2015 - 2019

Bachelor's Degree in Computer Engineering

Technical Skills

Programming Languages: Scala, Python, Java, SQL, Shell Scripting, .NET, C

Data Platforms & Analytics Engines: Databricks, Snowflake, Apache Spark, Hadoop (MapReduce, HDFS), Kafka, Cloudera, Hive, Impala,

Kudu, HBase, Sqoop, Hue, Zookeeper

Databases & Data Management: SQL Server, MySQL, PostgreSQL, SQLite, Elasticsearch, Redis, MongoDB

Cloud Platforms & Services: AWS (S3, RDS, DynamoDB, Redshift, Glue, EMR, Kinesis, Lambda, Athena, Airflow) DevOps, CI/CD & Version Control: Git, Bitbucket, GitLab CI, Jenkins, Maven, Docker

Certifications

- **AWS Cloud Practitioner Foundational**
- AWS Data Engineer Associate
- biGENIUS-X Engineer Data Vault Modeling
- biGENIUS-X Expert Snowflake Data Vault
- Snowflake SnowPro Core

Language Skills

English

Professional Working Proficiency (Advanced C1) / Fluent.

Spanish

Native language.