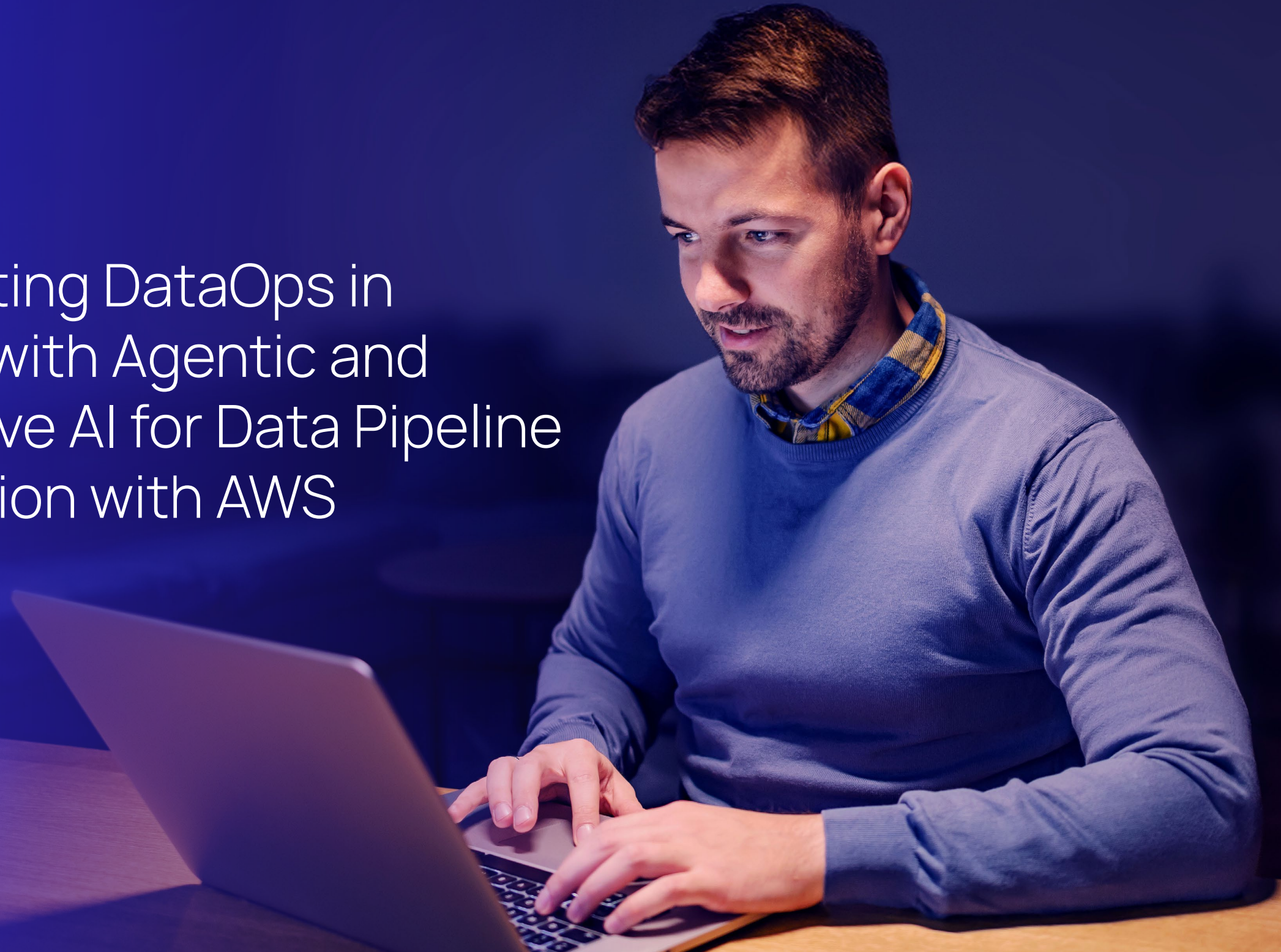


HEXAWARE

Augmenting DataOps in Finance with Agentic and Generative AI for Data Pipeline Automation with AWS

Case study



Client

| Client

- Challenge
- Solution
- Benefits
- Summary

A Global Mortgage Financing Company

Our mortgage financing client specializes in providing tailored home loan solutions to a diverse clientele, including individuals and families looking to purchase their first home, refinance existing mortgages, or invest in real estate. The company is a forward-looking global mortgage provider, ensuring clients receive the best possible financing options.



Challenge

Client

| **Challenge**

Solution

Benefits

Summary

Increasing Productivity and AI Augmentation for DataOps Teams

In a high-compliance industry, such as mortgage and finance, our client faced significant challenges in managing data operations efficiently. Analysts were dedicating 30 to 40 minutes per incident to investigate data pipeline and job failures, sifting through multiple log systems to identify root causes. This time-consuming process hindered overall productivity and increased the risk of non-compliance with stringent Service Level Agreement (SLA) mandates.

Recognizing the inefficiencies in their data operations and the rising potential of AI augmentation for data teams, our client was challenged with finding the right AI solution. They needed a tool that could analyze logs efficiently, provide actionable insights in a conversational format, and pinpoint failure touchpoints in real time.

As artificial intelligence (AI) continues to transform the data lifecycle, financial institutions and other high-compliance sectors are beginning to recognize its potential to address such challenges. Our client's experience underscores the growing importance of AI solutions that not only resolve existing operational gaps but also future-proof enterprises in an increasingly complex data landscape.



Solution

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An AI-Powered DataOps Assistant Solution with AWS

Addressing the challenges faced by our client, we developed an intelligent AI DataOps assistant for its data teams, designed to improve their data operations using AWS’s latest features. Fusing generative AI along with an agentic AI solution, the assistant improves enterprise data management. Let’s see how.

How Does the AI Assistant Perform

- **Comprehensive Log Analysis:** The agentic AI analyzes logs across multiple systems, enabling the automated identification of root causes for data pipeline and job failures.
- **Critical Question Resolution:** GenAI features provide actionable answers to critical questions regarding log failures, ensuring swift issue resolution.
- **SLA Compliance Assurance:** The solution helps maintain compliance with stringent Service Level Agreement (SLA) mandates by ensuring continuous data availability and minimizing downtime.

- **Conversational AI Interface:** Its intuitive conversational features allow the intelligent DataOps solution to deliver insights through an easy-to-use dashboard, empowering users to act quickly and effectively.

The intelligent DataOps assistant is designed to increase productivity, save valuable time, and reduce the likelihood of manual errors when tracing data pipelines. By automating repetitive tasks and providing real-time insights, our solution future-proofs data operations, enabling the business to thrive in its highly-compliant industry.

How We Built It with AWS

AWS cloud, data, and AI platforms are recognized for industry flexibility, allowing enterprises to build versatile solutions that can adapt to various business needs.

We built the intelligent DataOps assistant using these AWS services:

- **AWS SageMaker Environment:** Utilized for efficient development and training of machine learning models.
- **AWS Bedrock Services:** Integrated guardrails, LLM, and embedding models for enhanced AI capabilities.

- **Language Model:** Leveraged Anthropic Claude 3.5 Sonnet for generating human-like responses.
- **Faiss Embedding:** Implemented for rapid data retrieval and analysis through efficient similarity searches.
- **Power BI:** Created a user-friendly dashboard for delivering insights in an accessible format.

The adaptability offered by AWS ensures that companies can implement solutions that meet specific regulatory requirements and operational demands, ultimately driving innovation and efficiency across diverse industries.

Benefits

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Increased DataOps Automation and Comprehensive Visibility

Agentic AI for Static Logs on Operational Data

Automated data system logs can be harnessed to extract actionable job statuses and operational insights, enhancing decision-making.

Instant Insights with Real-Time Job Monitoring

Immediate insights into data job performance, failures, and completion trends allow for proactive management of operations.

Generating Advanced Analytics for KPI Creation

The ability to create KPIs empowers clients to assess system health, evaluate data job efficiency, and identify bottlenecks, driving continuous improvement.

Intuitive Dashboards and Proactive Monitoring

Visualizations of insights facilitate effective workflow monitoring, enabling optimization of performance and resource allocation.

70% Improvement in Process Efficiency

Enhanced operational workflows lead to a marked increase in productivity and a reduction in time spent on data management tasks.



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AI-Powered Enterprise Data Management in a High-Compliance Industry

Our mortgage financing client has revamped their data operations with AI, tackling the challenges of a highly compliant industry. With advanced analytics for KPI generation and user-friendly dashboards for proactive monitoring, they can now make informed decisions and optimize resources effectively.

The strategic AI solution for enterprise data management, in its highly compliant position, positions the company as an industry leader in productivity and value creation with its data while also improving its ability to monetize data in the rapidly changing landscape.



About Hexaware

Hexaware is a global technology and business process services company. Every day, Hexawarians wake up with a singular purpose: to create smiles through great people and technology. With this purpose gaining momentum, we are well on our way to realizing our vision of being the most loved digital transformation partner in the world. We also seek to protect the planet and build a better tomorrow for our customers, employees, partners, investors, and the communities in which we operate.

With offices across the world, we empower enterprises to realize digital transformation at scale and speed by partnering with them to build, transform, run, and optimize their technology and business processes.

Learn more about Hexaware at <https://www.hexaware.com>.

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