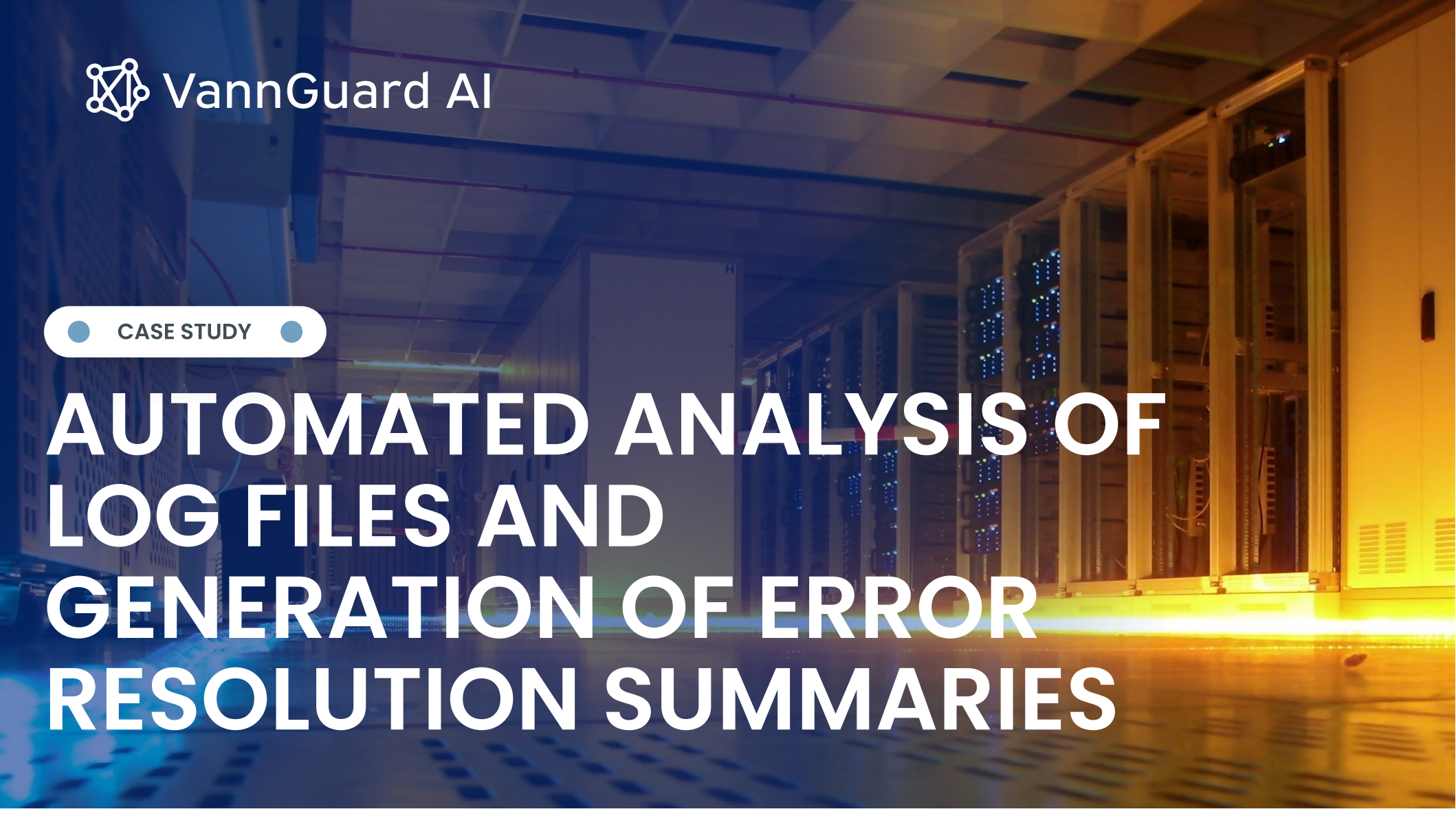
VannGuard AI



CASE STUDY

AUTOMATED ANALYSIS OF LOG FILES AND GENERATION OF ERROR RESOLUTION SUMMARIES

Overview

Aviatrix, a leading provider of cloud network infrastructure, faced significant challenges in managing and analyzing their extensive log files. Stored in Parquet format, these logs grew so large that manual review became impractical. Aviatrix partnered with our AI Services company to develop a Generative AI solution that could automatically detect critical errors within these vast log files and generate error resolution summaries. This system has streamlined error detection and resolution, reducing operational costs while improving overall system reliability and user satisfaction.

Customer

Aviatrix, USA

Country: USA

Customer Size: 1000+

Industry: B2B & B2C

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Problem Statement

Aviatrix's existing log management system struggled to handle the growing volume of log data, making it increasingly difficult for teams to manually identify and resolve critical errors. The process was not only time-consuming but also error-prone, leading to delays in issue resolution and potential risks to system reliability. Aviatrix needed an automated solution to enhance the accuracy and speed of log analysis while ensuring scalability.

Technical Solution

Our team developed a Generative AI system leveraging Python, Pandas, AWS Cloud, Llama3, and vLLM. This system automatically processes large Parquet log files, detects key errors, and generates error resolution summaries. We integrated Natural Language Processing (NLP) and Retrieval-Augmented Generation (RAG) techniques to improve the relevance and accuracy of the generated solutions. The AI system was designed to scale with Aviatrix's growing data needs, providing real-time error detection and resolution without human intervention.

Results

The implementation of the Generative AI system transformed Aviatrix's log management process. By automating error detection and resolution, the system significantly reduced manual effort and operational costs. It improved scalability, ensuring that even as log data continued to grow, critical issues could be identified and resolved in a timely manner. This led to enhanced system reliability, faster problem resolution, and higher satisfaction among Aviatrix's users. The solution generated around 200 error resolution chats, enabling a more efficient and proactive approach to system maintenance.

Technologies

- Pandas
- Pandas
- AWS Cloud
- Llama3
- vLLM
- SkyPilot

Domains

- Generative AI
- Chatbot
- Natural Language Processing (NLP)
- Retrieval Augmented Generation (RAG)