

## **(Digital Journey: Automated Machine Learning Workflow for Field Data Management)**

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### **Summary**

#### **Theory / Method / Workflow**

Data management in the oilfield is one of the key challenges that petroleum engineers face as they seek to optimize reservoir and production performance. Addressing this challenge requires the engineer to bring together and analyze several data elements from different sources, including real-time data, excel sheets, shared folders, logs, seismic and others. Another challenge is to create and automate the engineering workflow to save the engineers' time and improve efficiency.

#### **Results, Observations, Conclusions**

An automated Machine Learning workflow developed between the applications and the corporate database to evaluate engineering workflows in an oilfield through a surveillance system and a mechanism to rank and select workover candidates for remediation. The workflow starts with organizing, validating, and auditing the available well data in the corporate database. This is followed by a review and analysis of existing reservoir engineering data.

#### **Novel/Additive Information**

This integration between the big data in the corporate database and the engineer desktop applications helped in saving a lot of time and streamlining the engineering analysis and approach to the problem to provide the right solution

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