

**CERTIFICATE
OF COMPLETION
1016**



**Alexander
Subbotin**

**Data
Marts**

Pipelines

**Structured
Streaming**

**Data
Frames**

**has shown
exceptional
dedication
to mastering
the technology
of Apache Spark
for data engi-
neering tasks**

**ML-
engineering**

**Monitoring
and Optimization**

**NEW
PRO
LAB**

06.07.2020

A handwritten signature in black ink, appearing to read "Elena", written over a light blue circular background.

**ELENA
TRETYAKOVA
CEO, Newprolab**