

**CERTIFICATE
OF COMPLETION**
1110



**Azat
Khasanov**

**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**

01.11.2020

A handwritten signature in black ink, appearing to read "Elena".

**ELENA
TRETYAKOVA**
CEO, Newprolab