

# Certificate



**ROHDE & SCHWARZ**

## Mr. Kilian Lafrentz

Participated in the online challenge of the Rohde & Schwarz Engineering Competition dated from 26 April to 19 May 2019. The topic of the competition was "5G Broadcast". The strength of this 5G broadcast transmission is to efficiently transmit the same data to many users simultaneously over a large area. This broadcast transmission can now be used to complement existing unicast transmissions (OTT) with the mobile network.

In this context, the task was to develop an algorithm (machine learning) to optimize the user experience of the customer (= unsatisfied demand) and to maximize the profit (advertising earnings) of the content provider when streaming via 5G broadcast channel.

The participant successfully completed tasks in the following areas:

- Analysis of a dataset and training of an algorithm to find patterns in the data
- Predict the user behavior for the future with a technology (programming language) of choice
- Find an optimal trade-off between a good user experience and a high revenue for the content provider

The solutions to the tasks were delivered in a special CSV format defined by Rohde & Schwarz.

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