



Vienna, April 2019

## Letter of Reference

Mr. Michael Ebenstein, born on 13.10.1999, had been employed as intern at Telekom Austria Aktiengesellschaft from 23.07.2018 until 22.01.2019.

The main topic of his internship in the area „Vertical Market Solutions“ of A1 Digital International GmbH was the creation of an application for predicting optimal bidder prices for the Austrian secondary and tertiary energy market.

His area of responsibilities included the following tasks and requirements:

- Understanding of processes and rules of energy trading on the Austrian secondary and tertiary energy market
- Graduating the certification training BigML
- Analysis of existing data
- Data transformation and feature engineering (data preparation, including further data e.g. weather data,...) in Python
- Creation and evaluation of various machine learning models by Python and the machine learning platform BigML
- Creation a dashboard to visualise the results with Dash and Plotly (using Plotly)

Mr. Ebenstein distinguished himself particularly by his independent work style and the ability to quickly familiarise himself with new topics and technologies. We were also impressed by his great interest in the topics machine learning and artificial intelligence.

His always very professional cooperation as well as his good integration into our international Data science team have to be stressed. He was appreciated and respected by his superiors and colleagues.

Mr. Ebenstein understood very quickly the complex processes of energy trading and was very open-minded to the use of new technologies. Furthermore he was able to contribute a great deal of ideas when evaluating and introducing new tools and methods.

Although he worked only 15 hours a week during most of his internship (since he was still at school), he has created a model for the prediction of trading prices after a few weeks, which was significantly better than the one used before. He visualized the results optically very appealing in a dashboard developed by himself.



We thank Mr. Ebenstein for the excellent cooperation at any time and wish him all the best for his future career and private life.

DI Wilhelm Prinz, MBA  
Authorised Agent