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## **PRESS RELEASE**

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### **Data Engineering paves the way for start-ups**

**Data Engineering is currently a very promising field. Machine learning, artificial intelligence and data analytics have become indispensable for businesses. Three computer science graduates with a specialisation in Data Engineering demonstrate what kind of innovative start-ups can be founded with successfully applied machine learning.**

**With its new bachelor's degree programme in Data Engineering, Bern University of Applied Sciences BFH is making a significant contribution to the quality training of sought-after specialists, who can choose between an interesting career in a company or the launch of a start-up.**

Software and data engineers are among the most sought-after IT professionals of the future. As such, they have access to a very broad range of professional opportunities: they program customised algorithms and software applications in the field of machine learning and advise companies on where they can be usefully applied. There is a wide range of attractive jobs on offer, and good earnings and career opportunities are guaranteed.

The fact that artificial intelligence is not intended to replace humans but rather aimed at providing them with efficient, reliable and intelligent tools, is impressively demonstrated by three start-ups launched by BFH graduates.

#### **Artificial intelligence used to write imaginative stories for children**

If you want to offer your children customised stories based on their interests, you can have such stories written and illustrated by TalesTime, a website. You will not have much to do: you only have to enter the main characters and the desired plot, and you will receive an illustrated personalised story within 72 hours. Silas Stulz founded the start-up in November 2022. He trains the artificial intelligence with controlled data to avoid reproducing outdated gender role models in stories. He gained the necessary know-how in the field of machine learning on the Data Engineering specialisation. "Of course, there is still a lot of learning by doing, as is usual in computer science," underlines Silas Stulz. So far, he has only received positive feedback from parents, who appreciate that his method allows them to unleash their imagination. In addition to his regular job as a senior IT consultant, Silas Stulz is completely focused on his start-up at the moment. In the future, he would like to add more depth to the stories and more consistency to the illustrations.

#### **Data Engineering helps detect bark beetles**

Co-founder of the start-up Agrarpiloten, Tobias Weissert is at the head of research and development in Data Engineering. His start-up provides drone services for agriculture and forestry. Data Engineering is used especially in the field of forestry: drone, satellite or micro aircrafts flights over forests allow the localisation of trees infested by bark beetles by means of multispectral images. Precise GPS information is then made available to the forest industry. The multispectral camera installed on the aircraft provides images of the treetops that are otherwise invisible to the human eye. These are then analysed using sophisticated algorithms based on deep learning. The georeferenced data is then made available to forestry staff. To do this, Tobias Weissert has to analyse large amounts of

data, using computer vision and deep learning. He acquired the necessary know-how during his studies at BFH.

### **Data Engineering against food waste**

The start-up noury provides companies with smart refrigerators filled with regional products for employees. Since fresh products have a limited shelf life even when refrigerated, Alexandre Moeri, CTO at noury, has developed an app that collects and evaluates all data in relation to the refrigerators. New customers in particular benefit from the data analysis of refrigerators that are already in operation and get their fridges filled accordingly for employees. With each withdrawal from the refrigerator via an app, Alexandre Moeri can analyse company-specific data even better and stock the fridge accordingly, leading to a reduction in food waste. The business model and the technology developed by noury are so successful that they are already being used in other areas, for instance by the LobbyStore, a self-service store for hotels. In his work, Alexandre Moeri benefits not only from the technical know-how in the field of Data Engineering, but also from the non-technical modules completed during his studies, such as business development and leading an international team.

The Bachelor of Science in Data Engineering at BFH ensures a high level of practical relevance through close links between teaching, practice and research. A valuable additional qualification is also provided by the wide range of non-technical elective modules in the fields of business, entrepreneurship and management.

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