



Sony manufactures audio, video, communications, and information technology products for the global consumer and professional markets. With its music, pictures, games and online businesses Sony is uniquely positioned to become a leading personal broadband network company in the 21<sup>st</sup> century. Sony's European electronics operations cover a full range of activities from R&D, design, engineering and manufacturing to marketing, sales and service.

Our **Stuttgart Technology Center (STC)** is where innovations and future generations of products are being developed to meet the requirements and needs of the worldwide markets and customers.

In our **STC European Technology Center (EuTEC)** our engineers are providing advanced European Audio and Video Technology for worldwide and European specific CE devices. The R&D is ranging from architecture and algorithm to software and standardization in the areas of optical technology (illumination and projection systems), digital transmission technology (digital radio and TV, near field communication and power-line communication), TV picture improvement (HDTV and MPEG on flat-screen displays) as well as standardization (DRM & Media Standards, DVB, NFC, PLC).

We are offering a

### **Research Internship on Business Intelligence**

Business Intelligence (BI) refers to computer-based techniques used in spotting, digging-out, and analyzing business' data, such as sales revenues by products and/or departments, or by associated costs and incomes.

BI technologies provide historical and current views of business operations, but most importantly they can predict how these operations may look like in the future. BI systems are also sometimes known as decision support systems, since they aim to support better business decision-making process. Related fields include information retrieval, data and text mining, machine learning and personalization/recommendation. In the latter topic, the final target is to increase the sales by predicting the future interests of the users, in order to "encourage" new purchases.

The successful internship candidate will work on real sales data from Sony Deutschland GmbH, where he/she will have to find associations and trends – data mining – and eventually develop algorithms which can explain past sales behaviors and ideally forecast future sales figures. Additionally, he/she will have the help of diverse logs containing information about user behavior, user preferences and user feedback (voice of customer).

The work will span all parts of the research and implementation process: literature study, quantitative experiments on the sales database and efficient implementation of the algorithms in Matlab and – if required – also in C.

We are looking for a dedicated student with mathematics or engineering background. Our ideal candidate is familiar with Matlab, has experience with Linux, and ideally has some working knowledge in handling large amounts of data. If you are interested in research, you find the topic interesting and you would like to actively participate in the team oriented, dynamic environment of an international company, please send a CV including your grades and your availability to the address below. The duration of the internship is 6 months. A compensation of 1000 Euro per month is paid.

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