Key takeaways from Ben Spanswick interview

After I watched the interview with Ben Spanswick I realized that I am looking in the right direction. There are lots of useful information that could help us, the students, to shape our vision about the main subject of our studies – the data. Well, data is everywhere, and is about only how it can be collected and then analyzed. I have learnt from that interview a few methods to collect information that are been used by PPL and this opens new opportunities for troubleshooting different trends and problems, applying of new developments, and broadening the spectrum of solutions. One of these methods is analyzing the images and extracting all the possible information, useful for the company. This is part of the deep machine learning techniques that lately became widely used in many branches – such as counterterrorism, national security, energetics, social services, automotive, etc. The image classification has been an important task within the field of computer vision. Image classification refers to the labeling of images into one of several predefined classes. Usually this process has four steps: image preprocessing, detection of an object, feature extraction and training and classification of the object. Another method, used by PPL, is collecting data from sensors. Most of the time sensors are great tool for monitoring and collecting useful information. They are mainly cheap, no moving parts, durable and reliable. Employing them in the process of gathering data is a great way to obtain vast quantity of information that could be used for unlimited purposes. Another takeaway from that interview is the need of use of OLE programming languages such as Python, C/C++, JavaScript, etc. Each of these different programming environments enables more levels and properties of the machine learning and neural networks. The goal here is to implement vast possibilities of the statistical methods, like GLM, simple linear regression, tree-based algorithms and more, to exploratory data analysis. Explanatory data analytics focuses on all the parts of context, mainly the why and how. An outcome can be statistically calculated, modeled, or visualized to tell you the likelihood of certain events based on preconceived variables. However, it doesn’t convey the necessary and effective actions you should take in real life. The last takeaway from the interview is the interpretation of the data. I agree that careful observation for trends and dependencies is a key to find the right solution. This could be time consuming but at the end the results will be rewarding. More important here is how the data scientist will compile the useful information, so the leadership will understand it. After all, as ben said, many leaders don’t care what computer programing language you use, what sophisticated algorithms is been involved, or how many and complicated statistical methods are being applied. They care only if they can understand, so to take the appropriate actions and course correct. Exploratory data analytics refers to the various ways to explore data.

Logbooks to track problems and solutions

Reference Values for Instrument Readbacks

System Suitability

Chromatographic Performance

Pressure Range for X Column

Peak Width/Resolution of critical pr

RT Stability

Error Log Message Descriptions