Qlik

ANALYTICS

Skullcandy

Using Qlik AutoML to get insights on returns and warranty records

Objective

To maintain the quality product their customers have come to love and expect, Skullcandy strives to be innovative in both product design and manufacturing. Their commitment to continue producing unique, high-quality headphones led Skullcandy's Jesse Mease, Warranty Return Data Specialist, and Mark Hopkins, CIO, on a two-year project to better understand how their products fail and how they can reduce returns and keep their products affordable. Essentially, they wanted the ability to fix problems proactively by using historical data to predict the failure rates for new products within the first 90 days, and which specific part or function would fail.

About Skullcandy

Born in Park City, Skullcandy is the original lifestyle audio brand that lives by its mission to not just listen to music but to feel it. Founded at the center of music and boardsports, Skullcandy drives innovation in audio experiences from groundbreaking technology in its headphones to once in a lifetime music events featuring emerging artists that inspire and move its culture forward.

Solution

To answer this question and truly understand what was happening to their products in the field and what their customers were saying about them, Skullcandy needed a two-part solution. First, they knew warranty returns information and customer reviews would be an invaluable resource, but with hundreds of products producing thousands of text documents, it would be impossible to sift through these documents manually.

Second, they wanted to bring in a machine learning solution to help them make sense of their manufacturing and return data to get the insights they need to take their business to the next level.

With limited machine learning experience and without an in-house data scientist, Skullcandy knew they would need to invest in a third-party machine learning platform. However, as Skullcandy began searching for the right platform, they realized that they not only needed something that matched their budget but something that they could quickly learn and begin using. This meant that some of the more complex, data scientist-centric systems were too expensive and too comprehensive for their experience and use case. They turned to Qlik AutoML™ and found it to be the right solution.

Obstacles

Working with Qlik, Skullcandy originally wanted to create a model that allowed them to forecast returns for the first 90 days following the launch of a new product. However, from the onset of their project, they ran into a few major challenges that inhibited them from early success. The first and most challenging to overcome was the lack of the necessary data. Because of the way they release new products and the type of data they collect, the data set was too small, and there were too many inconsistencies to produce a reliable prediction.

However, as the team at Qlik learned more about Skullcandy's business and their existing data sets, they were able to help pivot and build a predictive model using historical, month-by-month data. This new model allowed them to forecast returns by month for every single product.

Outcome

To understand which products customers were returning and why, Skullcandy had to make sense of the thousands of customer reviews and warranty records. To accomplish this, BigSquid.ai's customer service and data science teams helped build a custom a Natural Language Processing (NLP) program to identify repeated phrases and words, which they then uploaded into their reporting solution to create custom, filterable dashboards.

With these two processes in place, Skullcandy was very quickly able to start generating actionable insights and measurable value in two different areas;

First, with Qlik AutoML's predictions and the input for the text analysis of customer reviews and warranty records they are able to forecast specific parts or features in their products that have failed in the field, identify correlations to new products, and make improvements on those parts before going to market, thus decreasing the likelihood of future failures and of the costs associated with those returns.

Skullcandy has also found that being able to analyze and filter real-time reviews helps them quickly identify and correct a problem before it becomes a crisis.

Second, the accuracy of the model has helped Skullcandy address variances between what actually gets returned from retailers and what retailers charge for warranty returns. The actual product returns that come back are compared to the model, giving Skullcandy the ability to ask questions such as, **"You're' returning 12%, but only 8% of products are failing, why is there a variance?"**

Skullcandy anticipates they will leverage these new predictive capabilities in the future to not only forecast rate of returns, but also correlations between failing parts and factories and having a significant impact on the manufacturing process. Beyond manufacturing, they also anticipate they will use Qlik AutoML across multiple departments and applications.
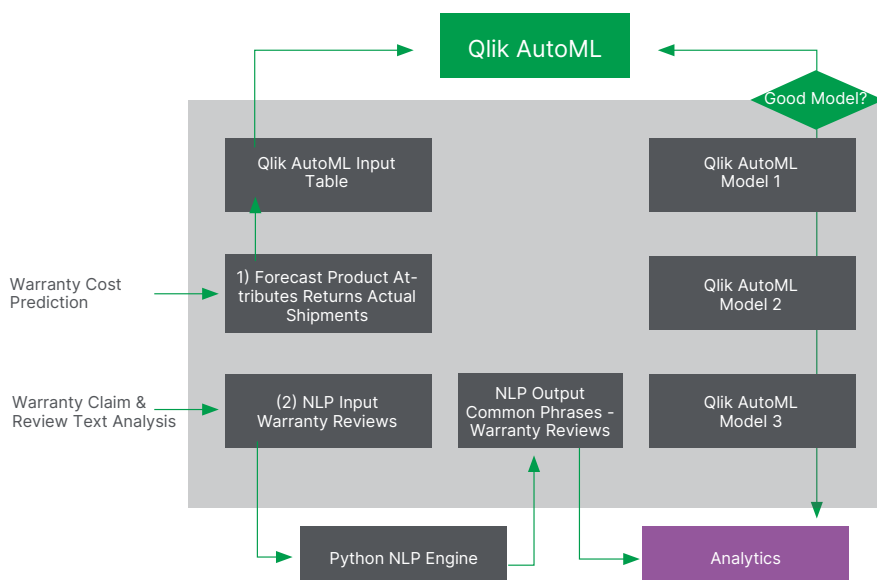
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About Qlik

Qlik transforms complex data landscapes into actionable insights, driving strategic business outcomes. Serving over 40,000 global customers, our portfolio leverages advanced, enterprise-grade AI/ML and pervasive data quality. We excel in data integration and governance, offering comprehensive solutions that work with diverse data sources. Intuitive and real-time analytics from Qlik uncover hidden patterns, empowering teams to address complex challenges and seize new opportunities. Our AI/ML tools, both practical and scalable, lead to better decisions, faster. As strategic partners, our platform-agnostic technology and expertise make our customers more competitive.

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