**Capstone Project Ideas**

**Idea** **1: Measure Marketing Efforts vs outcome for mid-size pharmaceutical firm**

German based pharmaceutical firm has its North American headquarters based in Raleigh NC with sales personnel across 50 states. Firm sells in Aesthetics and Neuro products typically sold to med spas and licensed medical practitioners, who in turn use the products to treat their clients / patients.

Field Sales Reps typically cover specific territories and represent one business unit (Aesthetics or Neuro), generate sales by periodically visiting Med Spas, Licensed Medical Professionals and other industry conferences that may come time to time. The firm has been having difficulty understanding who are the most profitable customers, what is optimal window for client visits, sampling size, calls vs sales etc..,

Proposed project idea will utilize Sales and Marketing data from in house transactional systems (ERP & CRM) to determine a model that predicts best value for the firm and its clients in terms of efforts vs outcome.

**Idea 2: Otto Group Product Classification Challenge**

The Otto Group is one of the world’s biggest e-commerce companies, with subsidiaries in more than 20 countries, including Crate & Barrel (USA), Otto.de (Germany) and 3 Suisses (France). We are selling millions of products worldwide every day, with several thousand products being added to our product line.

A consistent analysis of the performance of our products is crucial. However, due to our diverse global infrastructure, many identical products get classified differently. Therefore, the quality of our product analysis depends heavily on the ability to accurately cluster similar products. The better the classification, the more insights we can generate about our product range.

For this competition, we have provided a dataset with 93 features for more than 200,000 products. The objective is to build a predictive model which is able to distinguish between our main product categories.

**Source:** https://www.kaggle.com/c/otto-group-product-classification-challenge