UConn MSBAPM welcomes the class of Fall-2016
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Speech Analytics – Revolutionizing the World

‘Your call may be recorded for quality purposes—and Analytics too’!

Audio Mining is the new buzz word in Analytics which helps companies ‘Capture’, ‘Analyse’, ‘Identify’ and ‘Target’ customers based on their calls with the customer care.

Recorded phone conversations between companies and customers are passed through software which extract the voice notes into a stream of words. The output of these systems are scored against reference word-level transcriptions or sentences that have previously defined important to the business to identify the business issues rapidly. Companies set up search engines to look for conversations involving each word individually or a phrase and perform analytics around the same.

The framework looks as follows:

The applications of Audio Mining are for both the call center employees and the customers.

1. Emotion Detection-Is the customer happy?
2. Root Cause Analysis-Why is the customer calling?
3. Agent Talk Analysis-Is the agent leaving the customer on hold for a lot of time?
4. Agent Script Adherence- Is the agent abiding by the compliance guidelines?

The wide range of applications can also be spread across the various stages of a project:

The applications cannot simply benefit companies with their employee training procedures, but also identify poor practices that lead to customer dissatisfaction. Identifying customer insights and operational problems lead to higher revenue opportunities.

References

www.eetimes.com
www.fonetic.com
https://en.m.wikipedia.org/wiki/Speech_analytics
Analytics in Action – Telecommunications Industry

Big data analytics is not just a passing trend; it is becoming an increasingly important part of every aspect of a communications service provider’s operations. The drive for efficiency gains, coupled with the need to personalize customers’ experiences, is driving new installations. Falling costs and the increasing functionality of analytics solutions are allowing telecom providers to add more data to make increasingly complex decisions without growing their costs.

Big Data analytics tools are essential solutions that provide insights and actionable intelligence, which deliver the required operational changes. A critical element is the ability to deliver rapid insights; although not all processes need to be performed in real time, most benefit from being done faster. There is a general movement by telecommunications industry towards adopting Big Data technologies and analytics techniques, to move every process towards real-time analysis.

In this article, we will discuss and demonstrate the power of predictive analytics in telecom industry and discuss the limitless capabilities of Big Data technologies

Predictive Analytics Opportunities in Telecom:

Marketing, sales and customer relationship management are some of the areas where the returns from Analytics are the highest.

Ideally, analytics-driven telcos must have predictive analytics embedded in all their business processes, thereby moving away from decisions based on gut feeling or intuition. The figure below illustrates the four phases of a telco customer life cycle - Acquisition, Relationship, Retention and Win-back. Each phase can have several embedded analytical models, which can enhance operations considerably and provide a strategic advantage.

Predictive analytics models can be instrumental in the following key business areas for a telecommunications provider:

- Campaign analytics
- Churn modeling
- Cross-selling and up-selling
- Customer lifetime value analytics
- Customer segmentation
- Fraud analytics
- Marketing spend optimization
• Network optimization
• Price optimization
• Sales territory optimization
• Social network analytics
• Social media analytics
• Web analytics

The Promise of Big Data for Telecom

Big data promises to promote growth and increase efficiency and profitability across the entire telecom value chain. The figure below shows the benefits of big data over the opportunities available through traditional data warehousing technologies.

In a nutshell, they include:

• Optimizing routing and quality of service by analyzing network traffic in real time
• Analyzing call data records in real time to identify fraudulent behavior immediately
• Allowing call center reps to flexibly and profitably modify subscriber calling plans immediately
• Tailoring marketing campaigns to individual customers using location-based and social networking technologies

Big data can even open up new sources of revenue, such as selling insights about customers to third parties. Analytics and Big data solutions offer telecom operators a real opportunity to gain a much more complete picture of their operations and their customers, and to further their innovation efforts. The industry as a whole spends far less on R&D than any other technology-oriented industry as a percentage of sales, and its efforts to change its ways have not yet proven broadly successful. Big data demands of every industry a very different and unconventional approach to business development. The operators that can incorporate new agile strategies into their organizational DNA fastest will gain a real competitive advantage over their slower rival.

References:

How to Prepare for Your Career at the Start of a New Semester
By Katherine Duncan

If you are anything like me, then you are excited for the start of a new semester! Perhaps you will be starting your first semester filled with nerves and anticipation for what the new school will bring! Maybe this will be the second semester and you are feeling more confident now that you have...
one under your belt and only one more to go after that! Alternatively, it is your final semester and you are wondering how it went by so fast! Whatever stage of your degree that you are in - we are happy to have you!

Many students ask me how they can start preparing now for their career plans before or as the semester starts. I am glad you asked! Here’s my advice:

- Make a list of your goals for the semester! If you put them down on paper, then you will be more likely to be focused on them and hopefully, accomplish them all!
- If you are not sure what you want to do after UConn (or even if you think you know) you can take a career assessment to gain more insight into your interests and strengths. Go to HuskyCareerPrep, in the Career Exploration Tab, there’s a “Quick Profile.”
- From this new information perform a Gap Analysis on yourself. What skills do you need to add to your background to make you a better fit for your desired profession?
- Join a new club, sports team, or volunteering project! This is a great way to meet people and start networking!

Remember, it is up to you to make the most out of all the experiences available to you! So take advantage of all that UConn and BAPM offers.

I look forward to seeing you this semester!

**Intern Experience - Lockheed Martin**

**By Prasanth Regupathy Chandrasek – Student MSBAPM**

During this summer, I had an opportunity to work as an intern at Lockheed Martin which is primarily an aerospace company and has interests in other areas such as defense, security, advanced technologies and IT services to support Federal Government units. I was in a Federal Government project in which data analytics is being implemented.

Our customers’ mission is to protect consumers and prevent frauds. For example, if a consumer is charged unnecessarily by a credit card company, he or she could register a complaint. Other types of complaints include identity thefts and “Do Not Call” service. The business is facing a typical big data problem and has accumulated 135 million consumer complaints so far. Our challenge was to use analytics to provide valuable insights, find patterns, spot trends and identify new types of complaints. A secure analytics sandbox is set up with all the latest tools such as Tableau, Power BI, RStudio and Python to support data analysis. My role as an intern was to use these tools to analyze data and present my findings. Also, I had to train the data analysts in using these tools effectively.

I would like to highlight few differences between classroom environment and work environment. In classroom exercises, we generally get a clean data set and a specific task such as building a predictive model or a text mining exercise. However, in a typical work environment, there is data, and there are many business problems. The analyst needs to think through and choose a technique to solve different problems. The analytics projects were iterative, which means that the business owners reviewed and provided continuous feedback. One more different thing that I noticed was that the team was eager to publish our analysis in the web portal. For example, our team presented graph analysis to study relationships between data points. Instead of having this as a presentation or a simple code in analyst’s desktop, the team is implementing it on the website so that it will be dynamic based on criteria selected by users and will be beneficial to hundreds of users. To conclude, our program gives us a strong foundation and with continuous learning, I am sure that every one of us will be able to achieve great things!
Project Corner: Data Mining and Business Intelligence

New York Green Taxi – Forecasting Revenue and Trips

Business Objective: Street Hail Liveries (SHLs, known commonly as green taxis) appeared in 2013, providing more street hail service in areas across the different region of New York City (Manhattan, Bronx, Brooklyn, Queens and Staten Island). Our primary Business objective is to assist Street Hail Liveries (SHLs, known commonly as green taxis) forecast revenue generated through taxi trips within the NY City and number of trips information and impact of UBER taxi within Northern Manhattan and outer boroughs of New York City- Bronx, Brooklyn, Manhattan, Queens and Staten Island using different Time Series Forecasting Model. This would help SHLs business to address the rising demand of passengers and effectively optimize the allocation of Green taxi services across Northern Manhattan and outer boroughs of New York City.

Dataset: The dataset includes trip records from all trips completed in green taxis in New York City (NYC) in 2015, 2014 and select months of 2013. Records include fields capturing pick-up and drop-off dates/times, pick-up and drop-off locations, trip distances, itemized fares, rate types, payment types, and driver-reported passenger counts. The data used was collected and provided to the NYC Taxi and Limousine Commission (TLC) by technology providers authorized under the Taxicab & Livery Passenger Enhancement Programs (TPEP/LPEP).

Data Link:


Apart from the Green taxi data, we also used the following auxiliary datasets

- Uber Trips Data
- NYC Weather Data

Analysis:

a. Data Pre-Processing:

a. Extrapolate the data from seconds to hours: The raw dataset had one record for each trip and captured the trip pick-up times at the level of detail of seconds. The first step involved extrapolating the data from a frequency of second-level data to daily data.

b. Split the data region-wise: Based on the longitude and latitude values, data was grouped into five regions of New York City: Bronx, Brooklyn, Manhattan, Queens and Staten Island using Geocoding and SAS Base coding techniques.

c. Merge Uber data and weather data: Based on the day as the primary key, the Uber data (number of daily Uber trips) and the Weather data (mean temperatures) were merged to the daily Green taxi data.
b. **Descriptive Statistics - Insights:**

- As per the Geo-Analysis - NYC Boroughs, Manhattan has the highest count of the fare amount.
- Manhattan has the fare amount of 243 million followed by Brooklyn 181 million than the Bronx and lastly Staten Island.
- For each Borough, the fare amount has decreased in 3rd quarter.
- For Q4, the amount is not negative for the first two-quarters, but the increase is quite less when compared to quarter 2.
- The maximum fare amount is for Brooklyn for 2nd quarter i.e. 28.55%
- For February month, the increase in the percentage of Avg. taxi is much higher for Uber than Green taxi.
- The high percentage of increase shows that green taxi could have targeted the potential customers.
- There’s a huge fall in the March month for Uber data, which shows that Uber data has higher fluctuations.

- The bottom graph represents the count of the Avg. taxi for Uber and green taxi which is much higher for Uber than Green Taxi.

### Percentage Change Across Quarters

<table>
<thead>
<tr>
<th>Borough</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>% Difference in Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brooklyn</td>
<td>15.63%</td>
<td>10.35%</td>
<td>6.41%</td>
<td>24.82%</td>
<td></td>
</tr>
<tr>
<td>Manhattan</td>
<td>-3.87%</td>
<td>-2.41%</td>
<td>-2.09%</td>
<td>-24.17%</td>
<td></td>
</tr>
<tr>
<td>Queens</td>
<td>-9.42%</td>
<td>-2.09%</td>
<td>-2.69%</td>
<td>-24.17%</td>
<td></td>
</tr>
<tr>
<td>Staten Island</td>
<td>-10.41%</td>
<td>-2.41%</td>
<td>-2.09%</td>
<td>-24.17%</td>
<td></td>
</tr>
<tr>
<td>The Bronx</td>
<td>-2.14%</td>
<td>-2.41%</td>
<td>-2.09%</td>
<td>-24.17%</td>
<td></td>
</tr>
</tbody>
</table>

### Traffic Trends - Green Taxi Vs. Uber

- The bottom graph represents the count of the Avg. taxi for Uber and green taxi which is much higher for Uber than Green Taxi.

### Modeling

- We developed a combination of ARIMA (Integrated Auto-Regression and Moving Average) models and transfer function models (using dynamic predictors) after pre-whitening the data and calculating the cross-correlation function between the dependent variables (number of trips and fare amount) and the independent variables. A detailed comparison of the parameters of various models developed is shown below.
### Transfer Function Model Equations:

1. Forecast Model Equation for Overall data set

\[ Y_t = \text{Fare Amount at time } t \]

\[ (1-B) \ (1-B)Y_t = -0.04150 + ((1 - 0.61865 B**(1)) E_t / (1 + 0.84265 B**2 + 0.70322 B**2 + 0.76074 B**3)) + (-0.000023 B**2(1)) \]

2. Forecast Model Equation for Overall data set with Uber trips and Temperature time series data:

\[ Y_t = \text{Number of Trips at time } t \]

\[ (1-B) \ (1-B)Y_t = 145.1048 + ((1 - 0.86216 B**2(7)) E_t / (1 + 0.57275 B**2(1) + 0.42497 B**2 + 0.18876 B**3)) + (-0.0213 + 0.02302 B**2) \]

### Business Insights/Recommendations:

1. As per the forecasting models developed, the overall average number of daily trips in the NYC for Green Taxi services is seen to increase from 17.5639 B**(12)\(Mean\_Temperature_{t-1} + (0.02115 - 0.03306 B**8)\) No_Trips_Uber_{t-1}
52, 212 trips per day in 2015 to an average of 71,116 trips per day in 2016 – an increase of more than 36%.

2. The average revenue generated per day through the green taxi service in NYC is seen to increase from $639K in 2015 to $667K per day – an increase of 4.5%.

3. The variation of the taxi services over the course of the year are different for each of the 5 NYC boroughs. As per the forecasting models developed for each of the boroughs to forecast the number of trips and revenue from the trips, we can deduce the following:

4. Compared to 2015, Brooklyn shows a positive growth in 2016, for each of the months, as shown beside.

5. On the contrary, Manhattan shows a decline in the taxi demand for all the months of 2016, compared to 2015.

6. Brooklyn and Manhattan show a steep increase in demand in the month of March-2016, followed by a negative growth in the month of April-2016.
7. The demand in both Brooklyn and Manhattan peaks again in the month of October-2016, after a slight sinusoidal fluctuation in the demands.

8. An understanding of the fluctuating taxi demand can be a great asset for the Green Taxi management to devise a load balancing optimization to meet the demand with as little capacity as possible, just by re-allocating the available taxis across various boroughs during various months of the year 2016.

9. In the months of February, April, July, September and October, there is relatively higher demand for taxi trips in Brooklyn compared to Manhattan. As such, more taxis should be made available for pickups in Brooklyn in these months.

10. Similarly, in the months of March, May, June, August, and November, there should be more taxis available for pickups in Manhattan compared to Brooklyn.

Team Members: Mir Akram Ali Yadullahi, Lav Bist, Pavithra Rao, Radha Chawla
Financial Institutions Grievance Analysis

**Business Objective:** Consumer financial protection bureau (CFPB) is a US government body which sends consumer complaints about financial products and services to companies for a response. Each week the Consumer Financial Protection Bureau sends thousands of consumers’ complaints about financial products and services to companies for a response. Those complaints are published here after the company responds or after 15 days, whichever comes first. Every complaint provides an insight to a business problem; this problem can be addressed by financial companies, which would result in better consumer experience. Customer feedback is an essential source of information for improving operations in the service industry, but capturing an accurate and complete picture of the customer experience has always been a challenging task. The business objective of carrying out this exercise was to identify the topics based on consumer complaint narrative and hence provide suitable recommendations to financial institutes. Using these insights financial institutes can identify customer needs and grievances. Addressing these issues institutes can enhance customer satisfaction which would increase customer loyalty, that would eventually result in cross-selling products and increased business.

**Dataset:** The data sets for this project were available from the consumer finance official site. It contained consumer complaint data from March 2015 – May 2016, regarding various financial products and services for nearly 3000 companies. There was only one .csv file which contained 18 attributes corresponding to various products for approximately 600,000 complaints.

**Analysis:**

a. **Data Pre-Processing:** As there were many products for different companies we decided to restrict our project scope to 4 products and top financial institutes providing these products. We selected four products for analysis based on complaint count and target audience.

We selected debt collection, mortgage, credit card and student loan. Further, we selected only the top financial institute for each product.

b. **Time Series Analysis:** Time series analysis was performed to analyze the trend in some complaints and predict the number of complaints in coming weeks. This can be very useful to evaluate customer satisfaction in case any new strategy is implemented in recent past by observing the trend in consumer complaints. We implemented various ARIMA models to get the best stationary and ljung box test results. We compared all the model by Schwarz Bayesian criterion (SBC) as it gives most parsimonious model with decent error performance. We observed various trends for different products:
<table>
<thead>
<tr>
<th>Product</th>
<th>Financial Institute</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortgage</td>
<td>Ocwen</td>
<td>Linear Trend + MA(4)</td>
</tr>
<tr>
<td>Debt Collection</td>
<td>Encore Capital Inc.</td>
<td>The Log Double(Brown) Exponential Smoothing</td>
</tr>
<tr>
<td>Student Loan</td>
<td>Navient Solution Inc.</td>
<td>I(1) NO INT</td>
</tr>
<tr>
<td>Credit Card</td>
<td>Citibank</td>
<td>ARMA(1,1)</td>
</tr>
</tbody>
</table>

Ocwen is one of the top ten financial company for mortgage, and the results show that. Decreasing trend for number of complaints indicates their good performance for mortgage product. On the other hand, we observed that number of complaints show an increasing trend for credit card. This is an alarming situation and needs to be addressed.

c. Text Analysis in SAS Enterprise Miner: To improve the customer satisfaction, companies need to improve their strategies. They need to target the areas where problems are faced by the customers, to find those specific areas we implemented text analysis.

The above figure depicts the process flow of text mining for debt collection. First, the data was imported through the csv file. Then it was partitioned into 70-30 training and validation data sets. Next, we added text parsing node where the corpus was built for analysis purpose, we provided with the stop list which included proper nouns that could affect our results like the USA, state names, company name, product name and credit card numbers (e.g., xxxx-2324). Stop list contains the terms that add only noise to the analysis and carry very less information. The next node was text filter, in this step weight is given to each term. The filter viewer enables us to interactively control terms to drop or keep, perform queries and view concept links. Filter viewer results ensured that there were no words that would add noise to our results. To assign the weights we selected inverse document frequency method, as the name suggests, here high weight is given to a term with low frequency and vice versa. Next node was text cluster, SAS Enterprise Miner does Latent Semantic Analysis (LSA) using the Singular Value Decomposition (SVD) to find the cluster. The clusters were checked for both training and validation data set to ensure that the clusters are stable. We came up with five stable clusters after analyzing results of training and validation data sets.

As depicted both training and validation data set presented similar results. Based on these results in the next text topic node we analyzed five text topics to identify key problems of the company. The text topic results gave text topic labels with one or more terms, each term having a role and weight. The key labels identified for debt collection were “validation,” “license” and “phone.” To further analyze these topics were viewed in filter viewer and it was
observed that all the complaints were related to the same issue. Similar analysis was performed for other products. Once all the issues were identified suitable business recommendations were provided.

**Issues and Business Insights/Recommendations:**

- **Ocwen (Mortgage)** – The number of complaints were few and revolved around, requesting the loan modification request forms multiple times.
- **We recommended them to improve the infrastructure and automate the process of loan modification request forms.**
- **Encore Capital Inc. (Debt Collection)** - The main issue observed was that the collection agency associated with Encore Capital Inc. harassed customers, and when asked for license and more information, nothing was provided. Another issue observed was, the company has often failed to provide validation request.
- **We recommend Encore Capital Inc. to change their collection agency and assign a dedicated team of resources to provide validation requests.**
- **Navient Solution Inc. (Student Loan)** – There was a repetitive complaint related to high-interest rate, where students were unable to pay because of high-interest rate.
- **We suggest Navient Solution Inc. to compare their interest rates with competitor financial companies and regularize rates to retain customers.**
- **Credit Card (Citibank)** – The common issue here was that consumers were charged fraudulently by the company. Although they made a payment on time, they were marked late. Also, the turnaround time to issue temporary card was very high.
- **We recommend automating the process of issuing the card.** Similarly, updating and linking up information for various schemes and customers across different products should be more accurate and in time.

**Team Members:** Krishna Chaitanya Muddodi, Nachiket Garge, Sishi Yang, Trina R. Maitra.

**Predicting Cuisine Category given a list of ingredients for Yummly**

**Business Objective:** *Yummly* is a website which bills itself as the number one site for searching recipes. *Yummly* brings together the world’s best cooking sites and food blogs in one central repository. To differentiate themselves in the crowded marketplace of cooking recipe websites, *Yummly* wanted to customize the user experience for its large customer base. One component of this customization required the categorization of all the recipes in their database. Our objective was to develop a model that could predict food cuisine based on a given list of individual ingredients.

**Dataset:** The source for the training data is https://www.kaggle.com/c/whats-cooking.

The original data was in JSON format.

**a. Data Pre-Processing:**

The dataset downloaded from the source was in JSON format. The first step was to convert this file to CSV format using a simple Python command. The CSV file was then imported into SAS Enterprise Guide and converted to SAS7BDAT format. This file was then exported to SAS Enterprise Miner.

The data consisted of a cuisine type (target variable), an identification number, and a list of ingredients. The dataset was first split into training and validation sets in a 70:30 ratio. The validation dataset was stratified
so that the proportion of each cuisine in the validation dataset was approximately equal to the proportion of the same cuisine in the training dataset.

**b. Data Exploration:**

For this step, we used the “Text Profile” node in SAS Enterprise Miner, as well as a Word Cloud Builder available for free on the internet. By identifying the most frequent words using the Word Cloud builder, we were able to get rough insight into which ingredients would have the lowest predictive power since frequent words tended to be spread amongst many cuisines. We also identified target cuisines which had high similarity to other target cuisines. High similarity amongst multiple target cuisines suggested the formation of a larger category consisting of the similar targets. For example, Japanese, Chinese and Korean had high similarity and might be bundled into an “Asian” category.

**c. Model Building and Refining:**

![Figure 1 Distribution of Target Cuisine in Total Dataset](image1)

![Figure 2 Word Cloud showing most prominent words](image2)

![Figure 3 Network Map showing similarity between different Target Cuisines](image3)

![Figure 4 Text Mining Diagram](image4)
In finding the best model (lowest misclassification rate), the important thing was tweaking the node parameters associated with the Text Parsing, Text Filter, and Text Cluster nodes.

1. Text Parsing node – We ignored parts of speech because this was largely irrelevant in the context of ingredients. We set stem terms to “yes.” This performs normalization by removing plurals and suffixes from words. We also ignored Numbers and Punctuation because these do not make any sense for ingredients text. We set ‘Noun Groups’ property to “No” to reduce the complexity of document-by-term matrix without any information loss.

2. Text Filter node – Frequency weight: We chose the “binary” option to avoid giving more weights to terms in a document which are actually not ingredients. Term Weight: Mutual Information. Since we have a categorical target variable, thus we have used Mutual Information. Terms with very high document frequency will not be effective in differentiating the documents. So we removed the high-frequency terms which were appearing across different cuisines. We used word cloud plots for top 5 cuisines to identify frequent words across different cuisines.

3. Text Cluster node – Clusters are mutually exclusive groups which mean one document can belong to one cluster only. In our case, we know that we have 20 categories of different cuisines so we will create exactly 20 clusters. Clustering algorithm used is Expectation-Maximization. We set SVD Resolution to high and Max SVD dimensions to 50.

4. Text Topic Node - In text topic analysis, each document can belong to many topics. 8 topics were created.

Data Mining Insights/Recommendations:

Model Refining is an iterative process. After building the first models, we found that the misclassification rate was quite high. Upon deeper exploration, we discovered that some of the data may have been originally misclassified. Perhaps the creators of the original data simply classified the ingredients based on geographical origin, rather than the ingredient list.

We eliminated erroneous classifications and this obviously led to lowered misclassification rate.

Business Insights/Recommendations:

Interesting Finding: Some cuisines have high similarity, and this tends to be correlated with the historical/geographical similarity of the people of the cuisine nations.

Business Value:

Increased customizability will differentiate Yummly and lead to higher customer retention & growth. This also has the potential to lead to more collaboration with business partners (Blue Apron – Flipkart)

Team Members: Taneja Young, Deepak Sisodia, Satya Kalagara, Mohamed Bahnas

Summer Projects in Analytics (SPA)

Over this past summer, several teams of MSBAPM students worked on various analytics projects in the areas of social knowledge markets, gamification, and urban transportation analytics, under the guidance of Professor Ramesh Shankar. Students used a variety of tools and techniques, including data visualization with Tableau, analytics with SAS, R and Python, Geocoding with Python, Hadoop, and Spark, to name a few. Students came up with interesting insights on user
behavior and societal impacts of various new and emerging technologies. This was not part of any course, but a voluntary effort on the part of students. The final presentation session was held at GBLC on the 25th of August and was attended by a lot of fellow students, as the teams gave the presentations. They were awarded certificates of participation by Professor Ramesh Shankar, who was instrumental in guiding the teams and mentoring them throughout the summer.

Faculty Spotlight
Dr. Jing Peng

Dr. Jing Peng, as our newest member of the faculty, can you briefly introduce yourself.

I just joined UConn this August, after earning my Ph.D. from the Wharton School, University of Pennsylvania. Prior to that, I obtained a B.S. degree in Physics and a M.E. degree in Computer Science in China. My research interests span several different areas.

During my master’s study, I spent three years in the area of data mining. Specifically, I designed algorithms to recommend information items (e.g., web pages and music) to customers based on their past consumption history.

My Ph.D. research concentrates on business analytics related to social media and digital marketing. One essay in my dissertation aims to provide insights on how to target customers who are connected to each other on social media platforms. Another essay strives to understand what affects paid endorsers’ participation and effectiveness in social advertising campaigns.

Also, I am also actively involved in the development of novel methodologies to address statistical challenges in analyzing real-world data.

What inspired you to become a professor and what are your expectations from students?

Flexibility is the main reason I chose academia. I can work on whichever topic I am interested in at whatever time I want. I will teach OPIM 5671 Data Mining and Business Intelligence this Fall. Two main goals of this class are when students walking out of this class, they have a good understanding of the basic concepts, and they have sufficient hands-on experience with related data analysis tools. My ears are all open to any suggestions on this course.

Analytics has been around for quite a while now, with many old school algorithms, techniques still the basis for it. Why do you think analytics is so much more relevant in this era?

Due to the development of cloud computing, data storage, and analysis at a large scale have become economically affordable even for small firms. Correspondingly, exploiting abundant data through analytics has become an increasingly important way for firms to gain an advantage over their competitors. So far, data analytics is dominated by prediction which focuses on the output. However, when managers are interested in intervention, a causal inference which focuses on the effect of input might be more helpful. In the future, more and more attention might be shifted to causal inference.

Please tell us about your hobbies. How do you prefer spending your weekends, if you are not working, of course?

I like playing basketball during my spare time, usually in the evening. I am also a fan of photography. On weekends, sometimes I go out with my camera and take photos of flowers, animals, and night scenes. If
not, I often work out in the gym or watch videos (e.g., sci-fi movies or TV series) at home.

**Student Spotlight**

**Radha Chawla**

**Briefly introduce yourself**

Coming from the beautiful and picturesque town of Dehradun situated at the foothills of Himalayas, I had an easygoing childhood with an inclination towards extra-curricular activities. I enjoy participating in sports and apart from sports I have the proclivity towards competitions like debates and extempore. Working for five years, I gained an inclination towards managerial roles, so my aspiration to become adept in business roles was what lead me to join UConn MSBAPM.

**You have more than five years of overall professional work experience, before joining UConn. What was your motivation to join the master’s program in analytics, given your background?**

I have worked for five years as a Database Administrator. My entire work experience revolved around data and data is a core business asset derived from multiple business processes. Managing and improving a business process is an important aspect of it. Pertinent and available data is a bedrock for actionable business intelligence, predictive modeling, and other data mining techniques. It is a key element of business productivity and growth. Through this course, I can get awareness of market-leading techniques that help to identify and manage key data from business processes. So, it is an enhancement to my previous experience and is a stepping stone to enter into the management field.

**Having extensively worked with traditional Oracle Databases and related concepts, what are your thoughts on the future of traditional databases, given that we are moving into the age of cloud computing and Big Data?**

Relational databases have enjoyed a long run as the database mainstay across a wide variety of businesses, and for good reasons. Relational databases have not necessarily adapted well to changes in the types and quantities of data now being generated. Expanding traditional databases to accommodate rapid growth is costly. Despite the modern designs and efficiency in managing large data sets, NoSQL databases are not the right fit for all projects -- and they are not likely to oust relational software from the top database perch anytime soon. Depending on the business goals, traditional databases, NoSQL databases or a hybrid of the two may be best to deliver the most value.

**Which industry and role would you like to join after graduation and why?**

After my graduation, I would like to work as project coordinator/analyst. A project coordinator is the one who assists a project manager in administrating a project. I have worked in a role of administration, and I know the responsibilities. Additionally, this role will involve a wider variety of responsibilities, which is what can make it a great way to work into a Business Analyst role. As a business analyst has to be adept in multitasking, so through this role I can start working in this field as it is hybrid of my experience, also will involve the learnings I have done while pursuing my course.

**How do you maintain a work/study-life balance amidst a busy schedule?**

In a busy work schedule, stress is inevitable. I like maintaining a proper schedule, communicating with people and taking long walks to keep stress under
control. I also believe in taking power naps during a busy day of work. Organizing the work in a meaningful way by assignment schedule helps me keep myself ahead of time and avoid stress.

Alumni Spotlight
Srikanth Varma Tirumalaraju

Give us a short and fun introduction about yourself.

Hello, readers! I am Srikanth, a former MS BAPM student. I hail from a historic city, Hyderabad, which is one of the major metropolitan cities in India. My life journey from Hyderabad to Hartford has been eventful. Thanks to my family and friends who supported me all along. The transformation from backpack to briefcase is a long story that cannot be put in this paragraph. Long story short; resigned a job at a Fortune 500 company, matriculated at a renowned business school, graduated with analytics and management degree, and started a full-time job at a Fortune 100 company. On a given day, you can find me in parks swinging a golf club, playing soccer, cricket, or volleyball, and sometimes running on track, or being a couch potato playing games on Xbox.

Explain in brief about your job at Cigna.

As a Data Analytics Specialist in Marketing Analytics group at Cigna, I take part in solving various business problems and implement industry best practices to Cigna’s marketing. We deal with all the marketing campaigns and work on diverse projects like Segmentation, Net Promoter Score, Acquisitions, Retention, Cross-sell, Marketing Mix Modeling and to name a few. I have been lucky to work for a Senior Director who encourages my team to get involved in most of the projects in our portfolio. My team has greater visibility across the business units, in other words, I am at a 3-degree separation from the Chairman and CEO of Cigna, a 38K employee establishment.

Given you did not have an Analytics/Project Management experience before BAPM, what would be your advice to similar BAPM folks during their job prep and search?

My bachelor’s degree was in Computer Science, and I had over two years of experience in SQL before joining BAPM, so I cannot deny the fact that this background helped me a lot during my job search. However, I did not have any predictive modeling experience. So was the case with many of my batch mates. Most of them have come from diverse backgrounds other than IT. However, we all landed in good analytics jobs. In my opinion, the key aspects of ace analytics based interviews are a strong foundation in statistics, decent skills in SQL, good understanding of algorithms (regression, decision trees, etc.), real-time projects and most important of all, good articulation of all the work that you have done in analytics or project management. Lastly, like our professors say, statistical result/output is useless unless we can tie it back to a business problem, so most of the interviewers also focus on case studies to solve business problems using analytics to study your line of thought. Lastly, I bumped into a handful of BAPM students with little to no work experience whatsoever. All I can say for such people is, start from nothing, and stop for nothing! Good luck with your internship and full-time job hunt!

What is it that you miss most about UConn/BAPM?

I miss all the fun I had during my school days. I miss my classmates, miss doing assignments, miss idling
around in financial accelerator study facility, and miss long team meetings to finish projects and presentations. I was lucky to be associated with great professors of BAPM. As they say, golden days of student life will never come back!

We heard you recently got a new car. Congratulations!! Please let our readers know something about it too.

Well, I was looking for something unique. I had many specifications in my mind, and the budget was a constraint too. I had to put my project management skills to use and come up with a constraint matrix. Time was not a big issue for me at that moment, so took it slow. I started with Infiniti, Acura, and Lexus, then went to Jeep, Subaru, Volvo, and Mercedes, but finally pearl-white Lincoln MKX it is.

I believe Dancing is like dreaming with your feet. The interest I had to learn dance did not restrict me from learning many other forms of dance and bringing my creativity to life. Through my years in Undergrad and corporate life, I had several occasions to learn and perform dance forms such as — Contemporary, Hip-Hop, Salsa, Belly dance and one of my favorite dance forms - Bollywood. Dance has helped me stay fit, lively and happy. Every time I dance, I turn into a better version of me. When I discovered how dance and fitness go hand in hand, I realized I could perform well as a Zumba instructor which is when I attended workshops and gained a certification to take up Zumba classes. Zumba is definitely a fun way of burning calories, and one should try it. Once I graduate from UConn I look forward to getting back to conducting Zumba sessions when free

Talent of the Month:  
Dreaming with your Feet..  
Sindhushree S M

Name: Sindhushree S M  
Work Experience: 4 Years  
Last Company: Infosys Ltd  
Last Designation: Senior Systems Engineer

It all started when I was 5 and developed an interest in this beautiful form of art ‘Dance’ which then turned into a passion. I started learning a traditional Indian dance form ‘Bharatanatyam’ under a reputed Dance Guru in his school named ‘Natyaniketan’ and have been a part of the dance school for the past 18 years. As part of the school and also individually I have had various opportunities to perform at several parts of South India and have won dance competitions too.
UConn MSBAPM Recruiter Summit

2016

The Career Development Office hosted a Corporate Recruiter Summit in July 2016. Top executives and talent management leaders from various organizations attended and shared ideas on how to engage our highly qualified MBA and MSBAPM students and ultimately recruit them.

UConn School of Business has built many valuable connections with companies over the years and having our Corporate Partners share feedback on how they would like the process to be changed was extremely beneficial. Our goal was to make the process of interacting with and hiring our students as easy as possible for all our stakeholders. Some companies were also presented with awards such as “Distinguished Corporate Partner” and others!

A few of the companies who attended this year were Cigna, Cognizant, Gartner, IBM, Priceline, and Prudential. They all expressed their interest in coming back on campus more often to engage with our students.

UConn MSBAPM Class of Fall-2016 Orientation
Anxious eyes, curious minds and loads of talent – pretty much sums up the atmosphere for the orientation sessions held in the month of August for the Fall-2016 Class! The orientation sessions led and organized by the UConn MSBAPM management – our very own - Anna, Kathy, and Dr. Jose Cruz, were marked by three days of learning and fun, conveying our vision as a pioneer business analytics and project management program to the Fall-2016 class. The ever so increasingly rich and diverse backgrounds of the MSBAPM students and a tremendous growth in the number of students joining the program every semester is a testament to our growth and recognition as a program all over the US. On behalf of all the MSBAPM Management, Faculty, and current students, we would like to convey our warm regards to the Fall-16 class and wish them all the very best as they go through an amazing journey of transformation.

MSBAPM Convocation and Alumni Networking Event

The pleasant evening of the 23rd of August marked an exhilarating Convocation and Alumni networking event for the MSBAPM program. A happy day to see more than 30 students from the MSBAPM program, graduate and a sad day to know that we bid adieu to our friends, classmates, and teammates. The event was also an excellent opportunity to network and meet with some of the UConn Alumni and get to learn their experiences post MSBAPM. The session was attended by students in great numbers, faculty and the program management team of MSBAPM. The event was kick-started by a keynote from John Elliott, Dean of the UConn MBA program. The keynote speaker for the event was – Michael Byam – Chief Data Officer at ‘The Hartford’. Giving an influential speech on his professional journey, Michael stressed the importance of having a powerful combination of analytics and project management skills, a vision also conveyed by our MSBAPM program. A special note of thanks to the UConn Alumni Relations team to make the event a grand success, that it was.

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