**Statistics 208 Project Proposal**

**Project Team**

**Team Leader:** Hong Khanh Che

**Team Members:**

**Topics**

**Motivation in your language (3-4 sentences) (due by Thursday morning meeting: 11 am)**

**Khanh Che:** [**https://www.kaggle.com/datasets/shahriarkabir/us-data-science-and-analytics-masters-programs**](https://www.kaggle.com/datasets/shahriarkabir/us-data-science-and-analytics-masters-programs)

As a staff member in the Development Education Department, our primary goal is to design, evaluate, and attract students to our master's program. To achieve this, we are analyzing data from other schools across the U.S. to gain a comprehensive overview of their offerings. By understanding the competitive landscape, we aim to:

1. Benchmark Our Program: Compare our program's fees, duration, and curriculum against those of other schools to identify areas for improvement and ensure competitive positioning.
2. Enhance Student Appeal: Identify what attracts students to other programs and incorporate those features into our own to increase enrollment.
3. Optimize Program Design: Understanding trends and emerging fields in master's education allows us to develop new programs and refine existing ones to meet current market demands.
4. Strategize Regional Outreach: Leverage insights into regional affordability and program diversity to tailor our recruitment strategies and reach prospective students more effectively.

[David Bezhanyan](mailto:david.bezhanyan@email.ucr.edu)

[**https://www.sciencedirect.com/science/article/pii/S2666720723001443#cebibl1**](https://www.sciencedirect.com/science/article/pii/S2666720723001443#cebibl1)

**https://www.kaggle.com/datasets/zagarsuren/telecom-churn-dataset-ibm-watson-analytics**

**Use this link:** [**https://www.kaggle.com/datasets/yeanzc/telco-customer-churn-ibm-dataset**](https://www.kaggle.com/datasets/yeanzc/telco-customer-churn-ibm-dataset)

Subscription-based businesses have become significantly popular in recent years due to their consistent revenue stream. So, customer churn prediction is the key to managing such businesses. It will help identify high-risk customers and develop more targeted marketing campaigns to keep them as clients. It will also help adjust and improve the services and products that cause customer churn. Moreover, implementing customer churn prediction includes a wide business sector area.

Objective 1: Identifying the main reasons which affect customer churn

Objective 2: By predicting customer behavior, we can enhance their experience

Objective 3: Insights will help us to develop new products by understanding customer behavior trends

**Topic Title:** {Title Here}

**Topic Motivation:** {Why did you pick the topic, what interested the team?}

**Research**

{Give a scientific discussion of the topic, teach us all the details and potential variables of the topic}

**Objective Proposal:** Give 3, can help figure out new ones if needed.

**Khanh Che:**

1. **Objective 1:** Offer mode-specific insights to help students choose the right program
2. **Objective 2:** Analyze the impact of geography on fees, program types, and subjects
3. **Objective 3:** Identify the most and least affordable Master's programs
4. **Objective 1:** {EXAMPLE: Predict Salary of Employees}
5. **Objective 2:** {EXAMPLE: Find top associating factors of market campaign A}
6. **Objective 3:**

**Zih Yu Chen**

Objective 1: Reducing customer loss by identifying potential customers switching to competitors

Objective 2: Increase revenue growth by churn rate prediction

Objective 3: Increase market share by studying customer behavior

**Data**

{Give a link to download the data. If you collected data yourself (not recommended), please email the data.}

[**https://www.kaggle.com/datasets/shahriarkabir/us-data-science-and-analytics-masters-programs**](https://www.kaggle.com/datasets/shahriarkabir/us-data-science-and-analytics-masters-programs)

[**https://www.kaggle.com/datasets/vivovinco/2023-mlb-player-stats?resource=download**](https://www.kaggle.com/datasets/vivovinco/2023-mlb-player-stats?resource=download)

[**https://www.kaggle.com/datasets/unsdsn/world-happiness/data?select=2019.csv**](https://www.kaggle.com/datasets/unsdsn/world-happiness/data?select=2019.csv)

**Data Gaps**

{Discussion on what may be missing from the data. This should be a short but intelligent discussion between topic research and topic data.}

Feedback from the Prof:

1. Don’t use geospatial coordinates

2. Use churn reason for analysis (to drive insights of churn rate)

3. Convert text into readable data using regex and help from prof

4. Implement results into strategies