Exploring 10 MSBA Programs

Group 10
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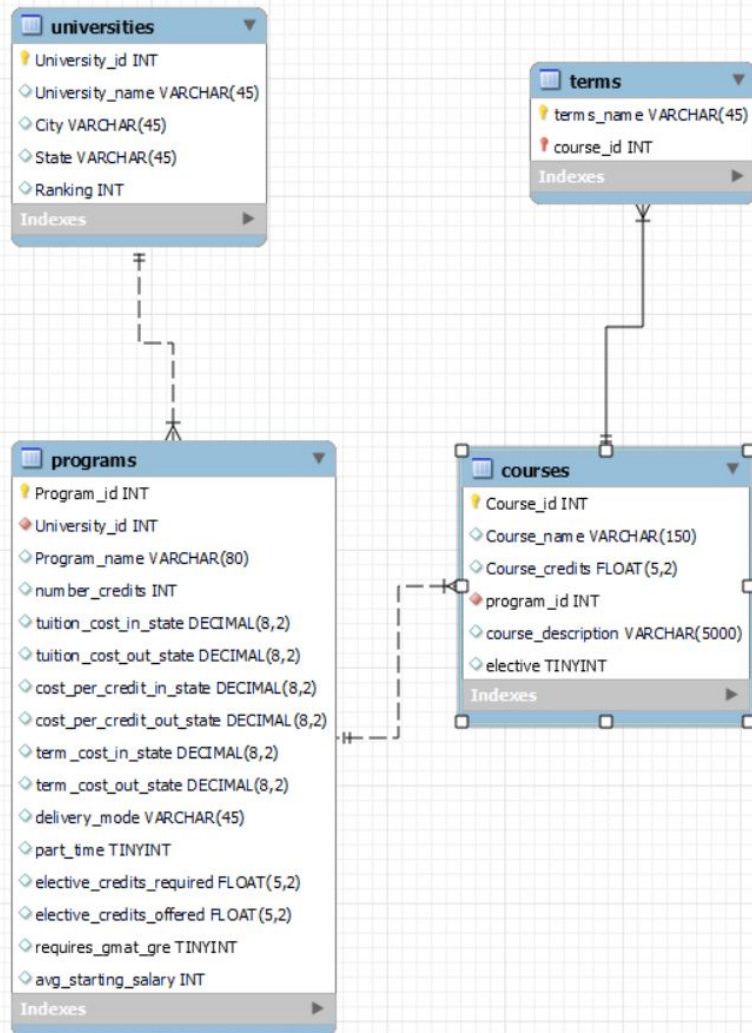
ERD

- Relationships
  - Universities → Programs → Courses → Terms
- Cardinality
  - One to many parent to child
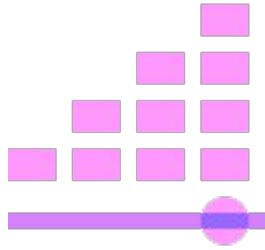 - One to one child to parent
- Constraints
  - One fk per child
  - Primary key and fk not null, everything else nullable

universities
- University_id INT
- University_name VARCHAR(45)
- City VARCHAR(45)
- State VARCHAR(45)
- Ranking INT
- Indexes

terms
- terms_name VARCHAR(45)
- course_id INT
- Indexes

programs
- Program_id INT
- University_id INT
- Program_name VARCHAR(80)
- number_credits INT
- tuition_cost_in_state DECIMAL(8,2)
- tuition_cost_out_state DECIMAL(8,2)
- cost_per_credit_in_state DECIMAL(8,2)
- cost_per_credit_out_state DECIMAL(8,2)
- term_cost_in_state DECIMAL(8,2)
- term_cost_out_state DECIMAL(8,2)
- delivery_mode VARCHAR(45)
- part_time TINYINT
- elective_credits_required FLOAT(5,2)
- elective_credits_offered FLOAT(5,2)
- requires_gmat_gre TINYINT
- avg_starting_salary INT
- Indexes

courses
- Course_id INT
- Course_name VARCHAR(150)
- Course_credits FLOAT(5,2)
- program_id INT
- course_description VARCHAR(5000)
- elective TINYINT
- Indexes

1) Courses Offered Per Program

58
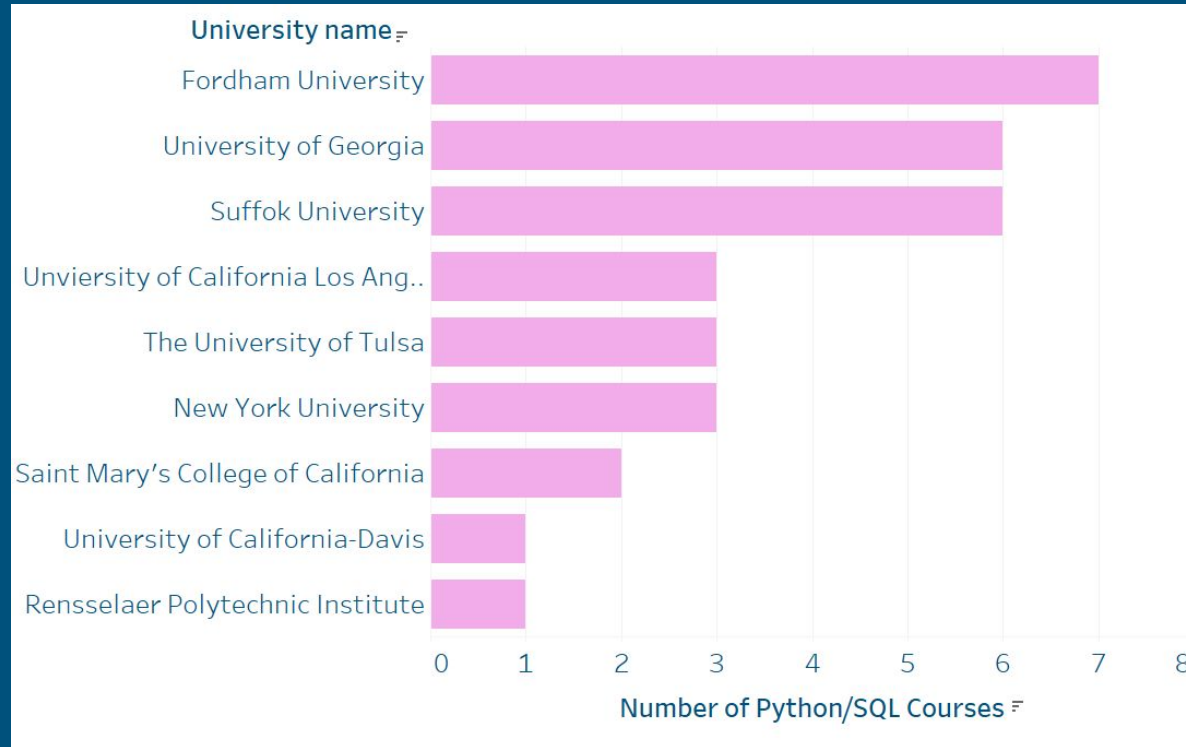**Maximum**
**Fordham and Suffolk

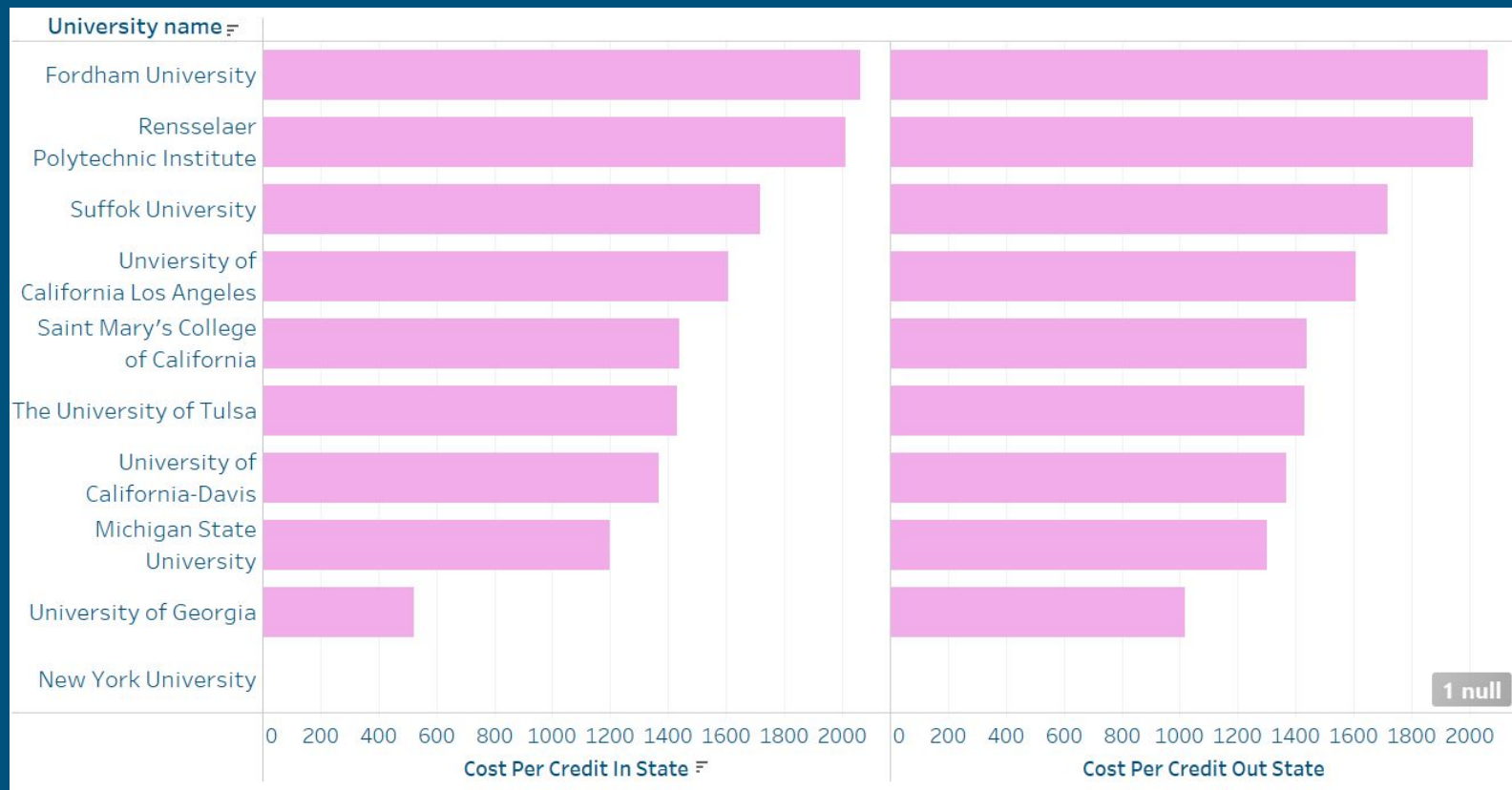

13
Minimum
**MSU and Saint Mary's

27
Average

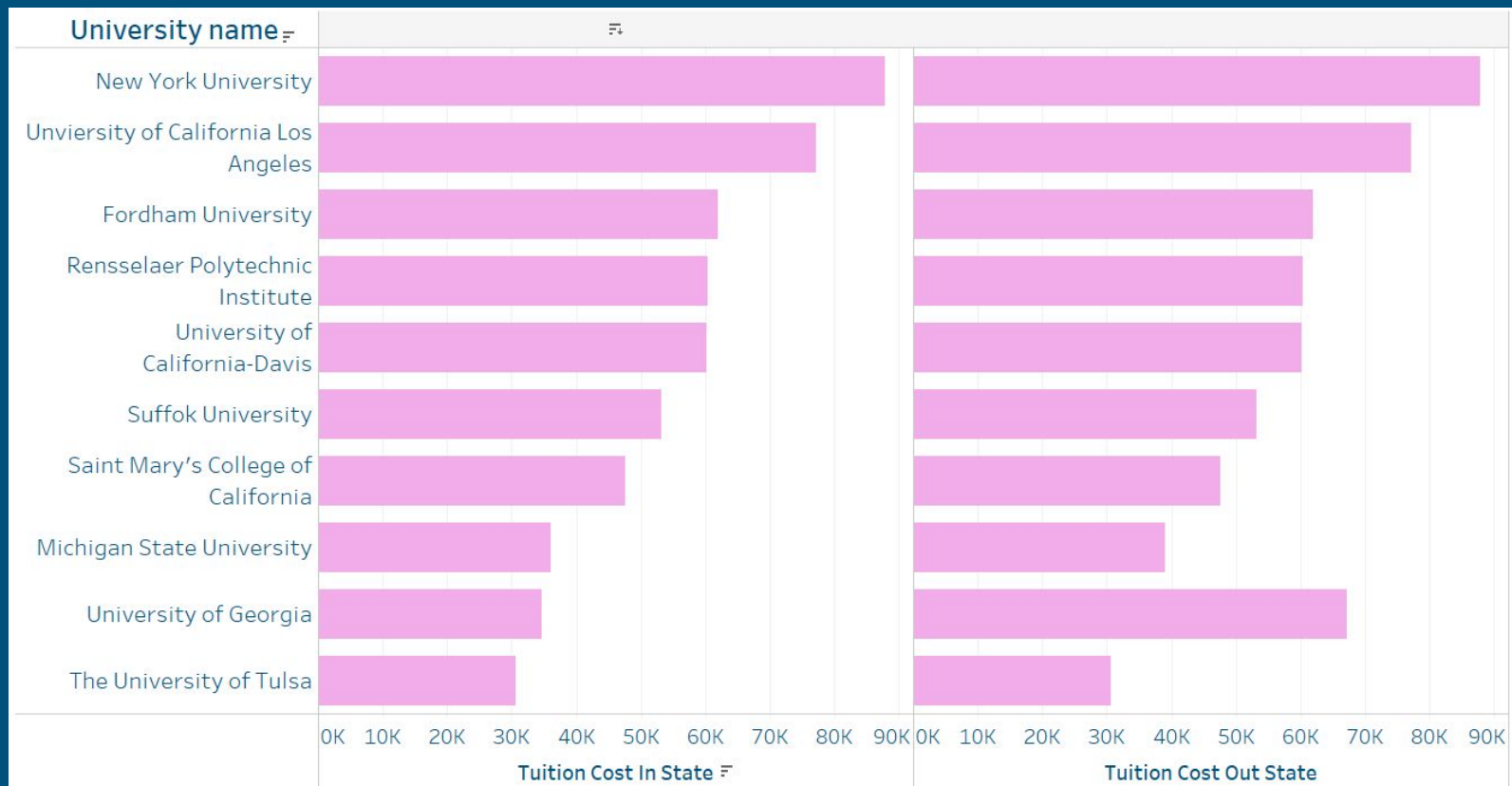# 2) Schools Offering Courses in SQL or Python

- 9 of 10 Programs offer courses in SQL or Python

- 3.55 average across 9 schools

- More courses may offer SQL/Python, just was not in course description
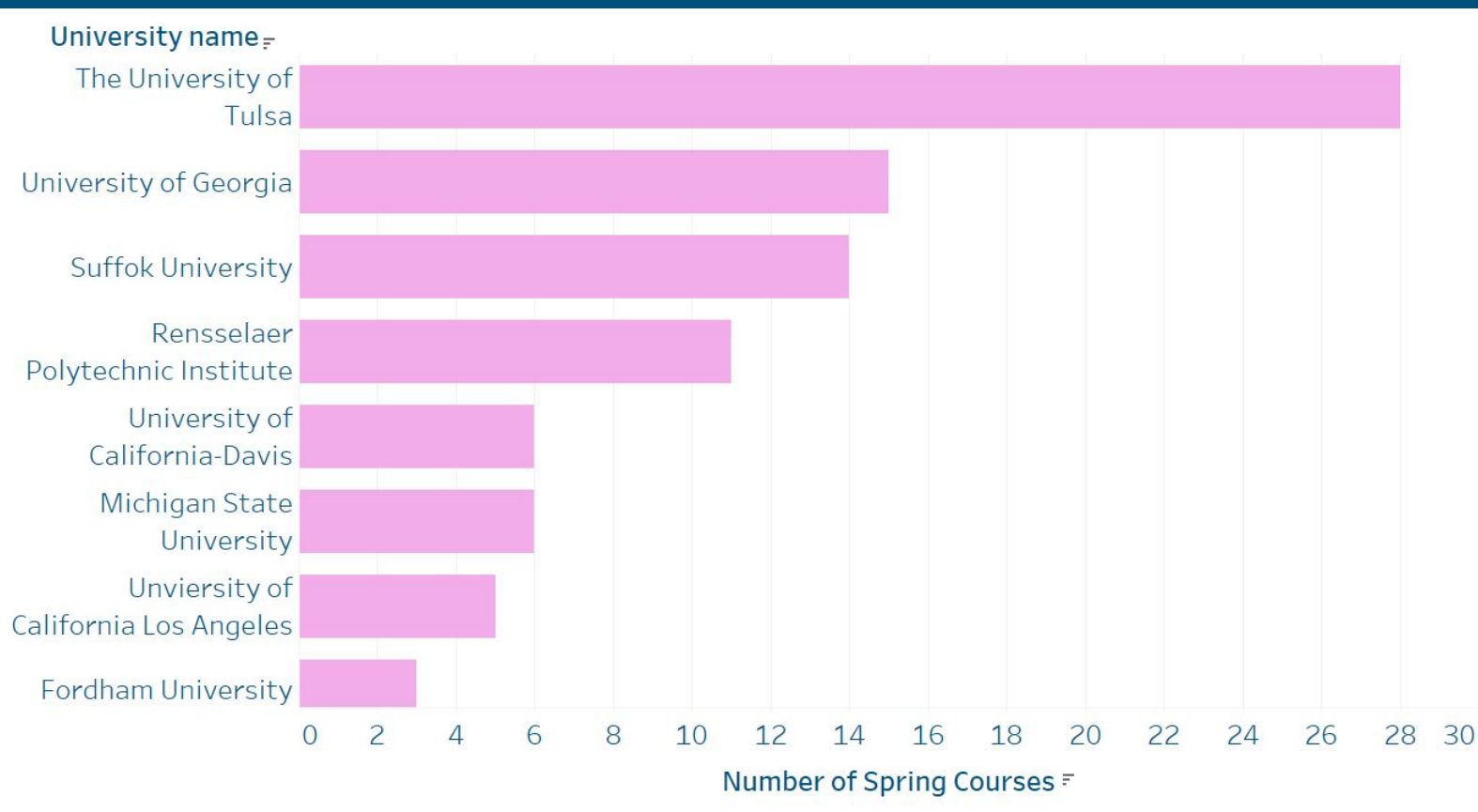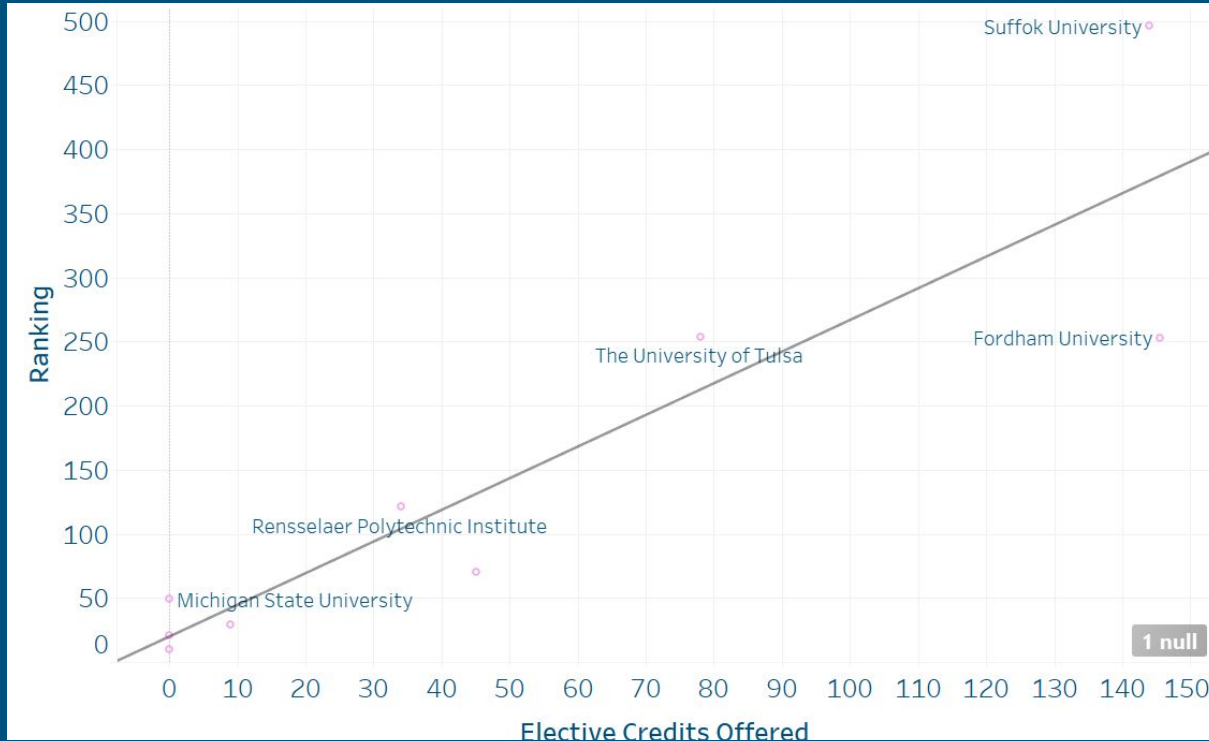
3) University Cost per Credit, In and Out of State

3) University Total Tuition Cost, In and Out of State

4) Three Credit Courses Offered in Spring

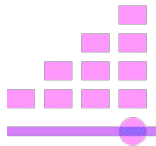# 5) Electives Offered vs University Ranking

- Suffolk University (496) is worst ranked out of all universities offering Electives

- Ranking on average suffers with more electives offered

- P value=0.0008, r squared 0.8

Extra Credit: Salary and GMAT Information

131,000
Highest Average
Annual Salary

82,000
Lowest Average
Annual Salary

108,993
Average Annual Salary
Across Schools

5 out of 8
Schools reported
requiring a GMAT score

Issues

Data Issues in Courses Table

- Had to find and replace incorrect characters

Calculating Costs

- Tuition or total costs
- Per credit not always available

Terms for Courses

- NYU runs on modules not terms
- Not all courses had terms specified

Questions & Answers

Full Table of Course Names with Python or SQL

University name	Course name
Fordham University	BYGB 7973: Database Management
	BYGB 7978: Web Analytics
	ISGB 79AA: Advanced Python for Financial Programming
	ISGB 79AC: Cybersecurity Analytics for Business
	ISGB 7943: Programming with Python
	QFGB 8911: Financial Markets and Modeling
	QFGB 8955: Computational Finance
New York University	Data Visualization
	Databases for Business Analytics
	Dealing with Data Using Python
Rensselaer Polytechnic Institute	MGMT 6570 - Advanced Data Resource Management
Saint Mary's College of California	OPS 643: Programming for Analytics
	OPS 645: Data Management Technology
Suffok University	ISOM-730: Python for Business Analytics
	ISOM-821: Data Management and Modeling
	ISOM-827: Data Warehouse and Business Intelligence
	ISOM-829: Advanced Data Management Leveraging ETL Tools
	ISOM-845: Business Intelligence, Data Visualization, and Storytelling
	MKT-869: Machine Learning for Marketing With Python
The University of Tulsa	ACCT 7113 Accounting Systems and Business Analytics
	QM 7083 â€" Business Analytics Practicum
	QM 7402 â€" Leading and Managing Analytics Organizations
University of California-Davis	BAX 431 - DATA VISUALIZATION
University of Georgia	ECON 7720: Machine Learning and Prediction
	MIST 7600: Data Management and Analytics
	MIST 7757: Data Engineering
	MIST 7770: Business Intelligence and Analytics
	STAT 6365: Modern Statistical Programming
	STAT 6420: Applied Linear Models
Unviersity of California Los Angeles	401: Machine Learning for Decision Making
	402: SQL and Basic Data Management
	405: Data Management