

MIE 1624 Project

Group 9

Xiafei Luo

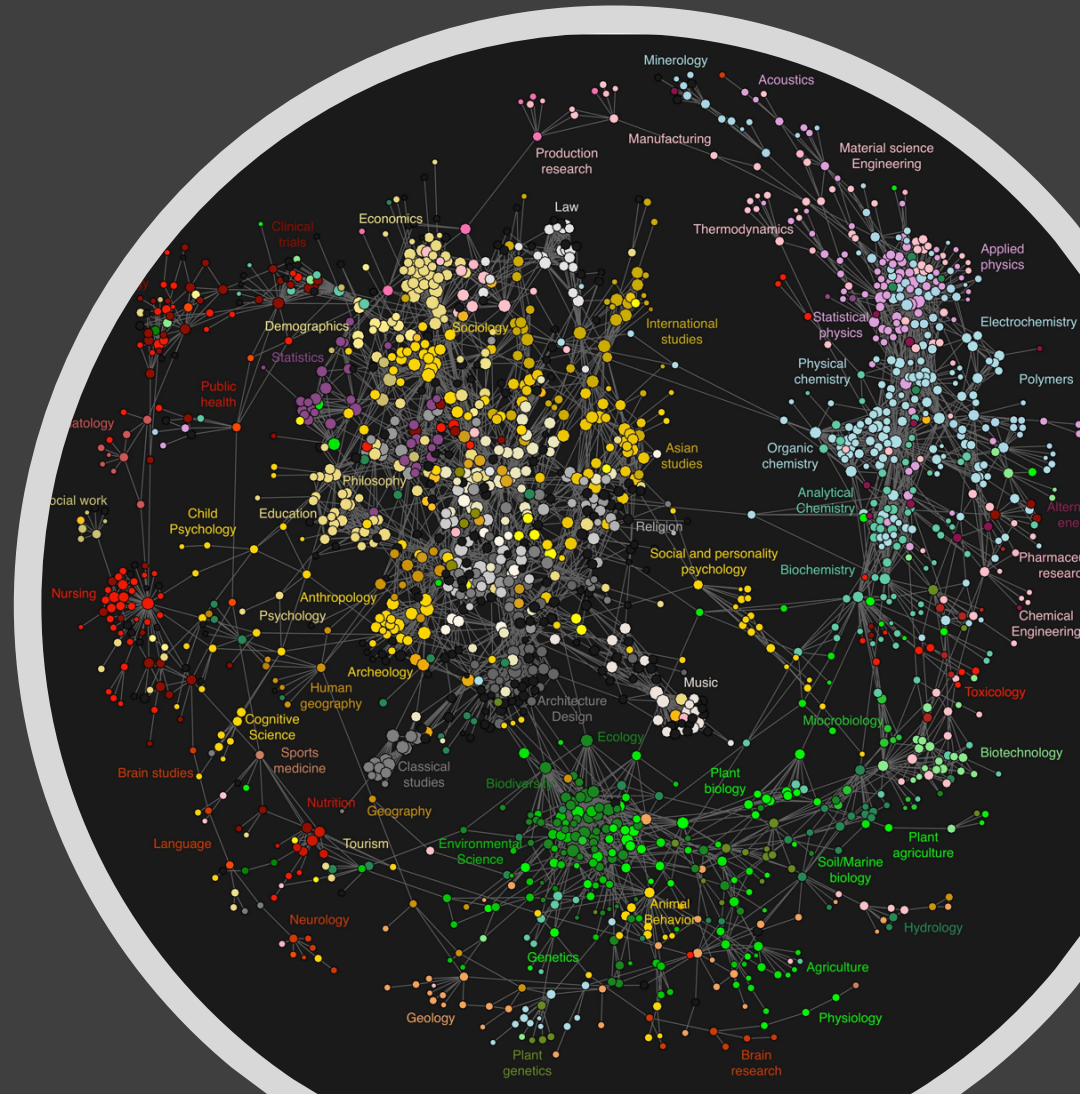
Xihao Liu

Yifan Shao

Yichun Cai

Zhihao Zhang

Wenqing Wang

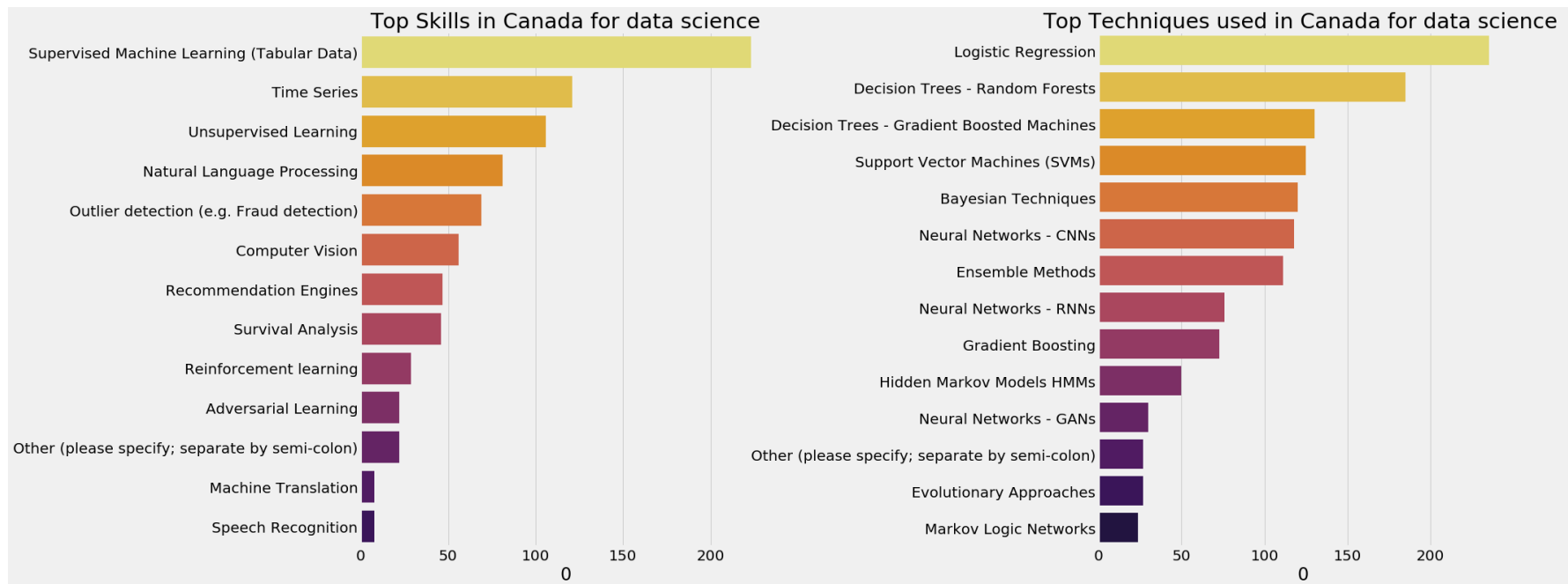


Overview

1. 1624 course curriculum design
2. M.D.S.A. and M.B.A.I program design
3. EdTech Startup

1624 course curriculum design

Top Skills from survey



Lecture

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graph TD; Lecture[Lecture] --> W1[Week 1<br/>Introduction]; Lecture --> W2[Week 2<br/>Tools]; Lecture --> W3[Week 3<br/>Math Skills]; Lecture --> W4_10[Week 4-10<br/>Machine Learning Skills]; Lecture --> W11[Week 11<br/>Review]; W4_10 --> W3_7[Week 3-7<br/>Supervised Learning]; W4_10 --> W8[Week 8<br/>Time Series]; W4_10 --> W9[Week 9<br/>Unsupervised Learning]; W4_10 --> W10[Week 10<br/>Neural Networks]; W3_7 --> W4[Week 4<br/>Logistic Regression]; W3_7 --> W5[Week 5<br/>Decision Tree<br/>Random Forest]; W3_7 --> W6[Week 6<br/>Decision Tree<br/>Gradient Boost]; W3_7 --> W7[Week 7<br/>Other SL];
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Week 1
Introduction

Week 2
Tools

Week 3
Math Skills

Week 4-10
Machine
Learning Skills

Week 11
Review

Week 3-7
Supervised
Learning

Week 8
Time Series

Week 9
Unsupervised
Learning

Week 10
Neural
Networks

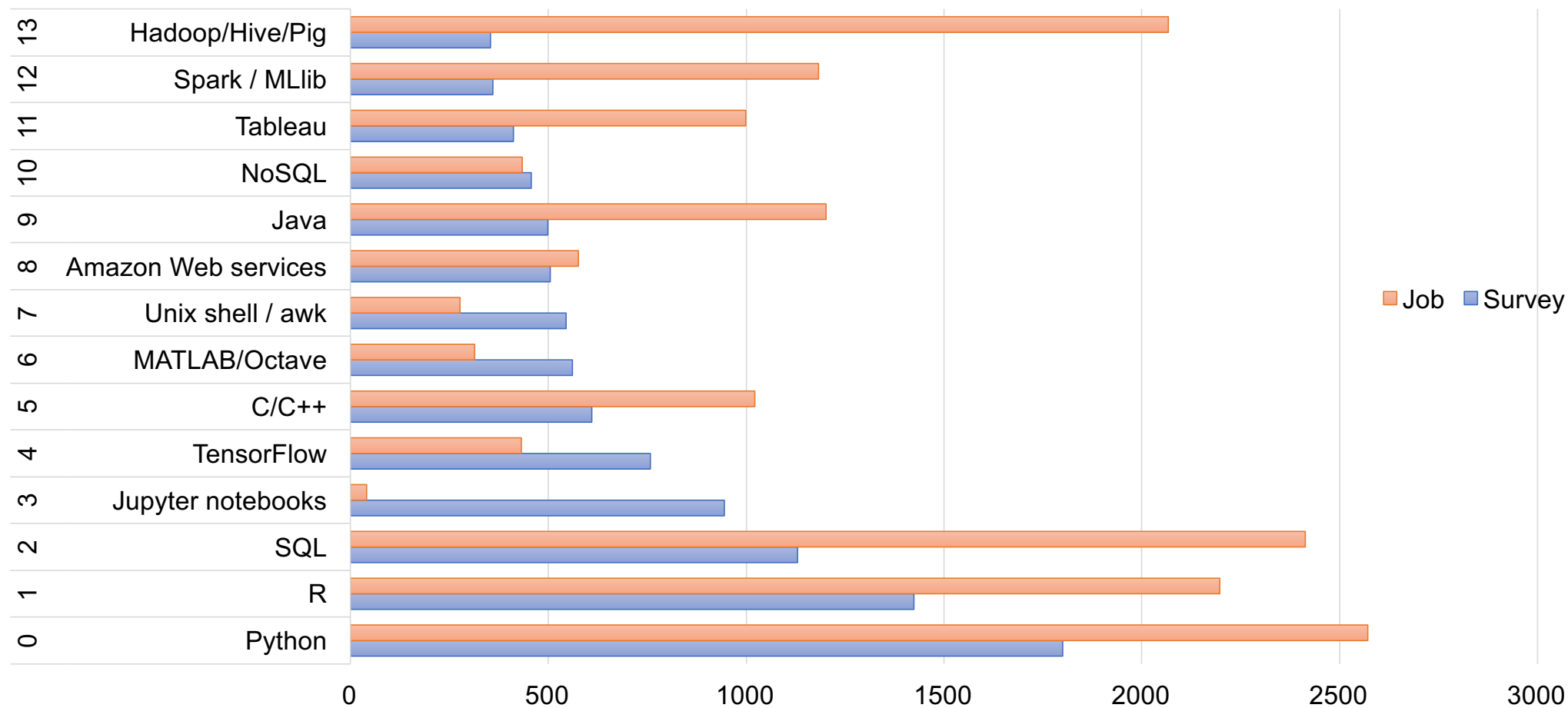
Week 4
Logistic
Regression

Week 5
Decision Tree
Random
Forest

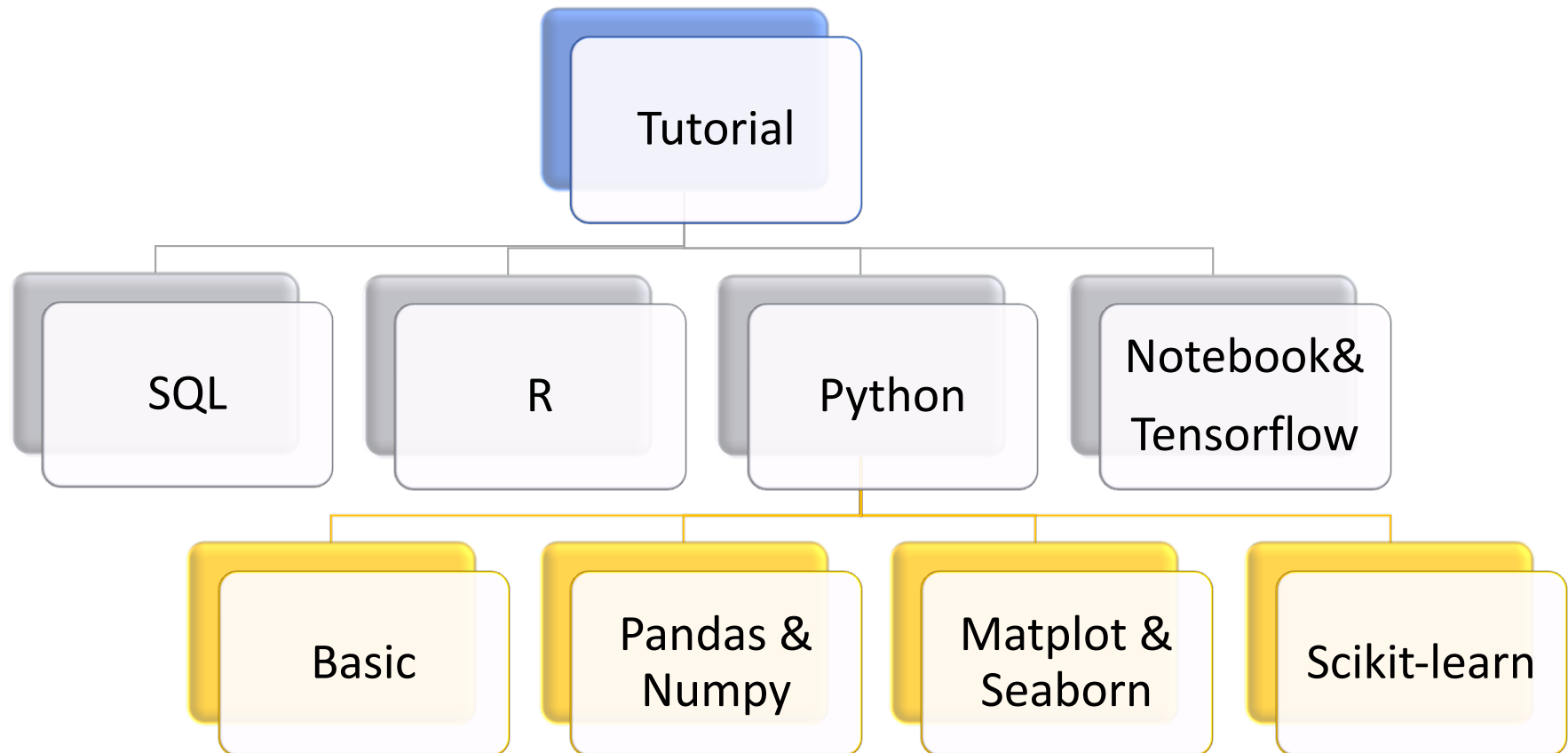
Week 6
Decision Tree
Gradient
Boost

Week 7
Other SL

Top Tools

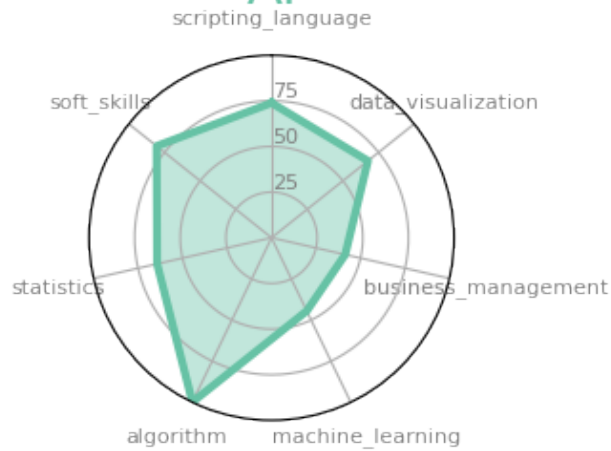


Tutorial

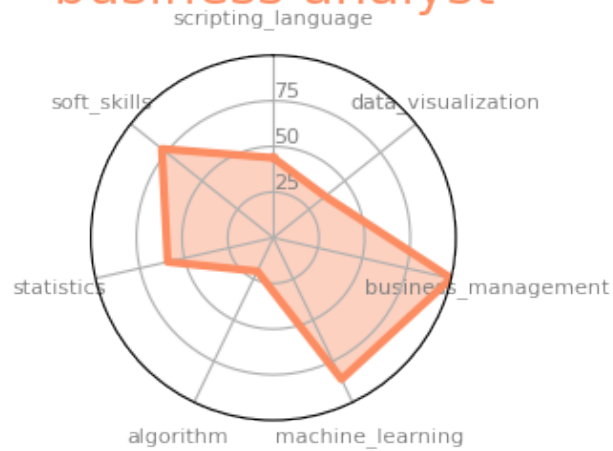


M.D.S.A. and M.B.A.I program design

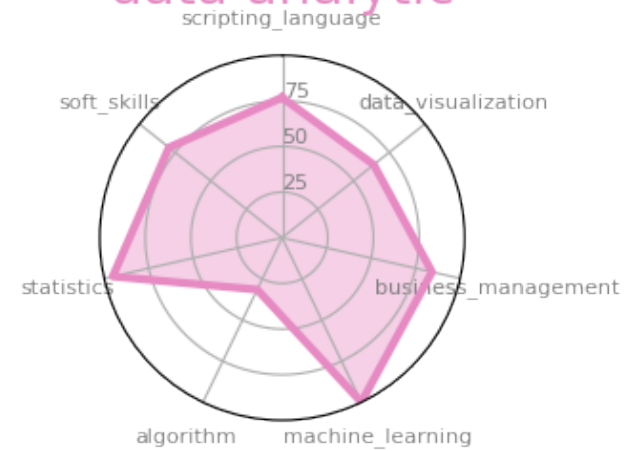
AI



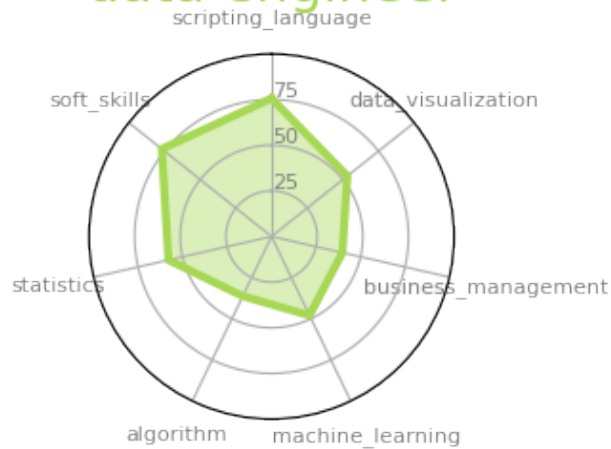
business analyst



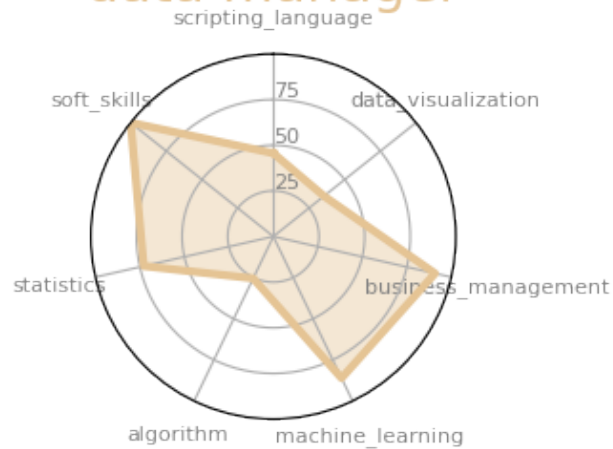
data analytic



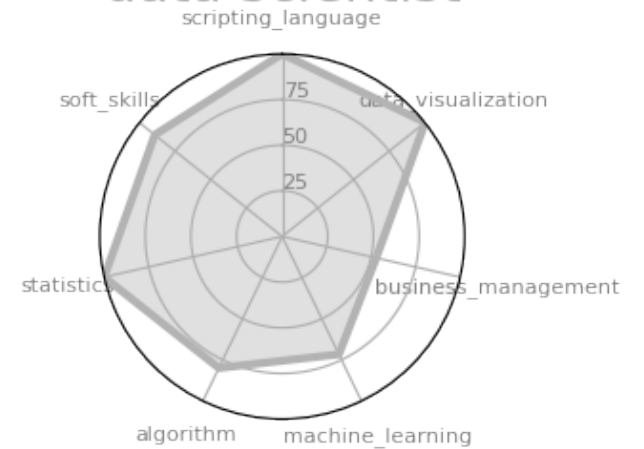
data engineer



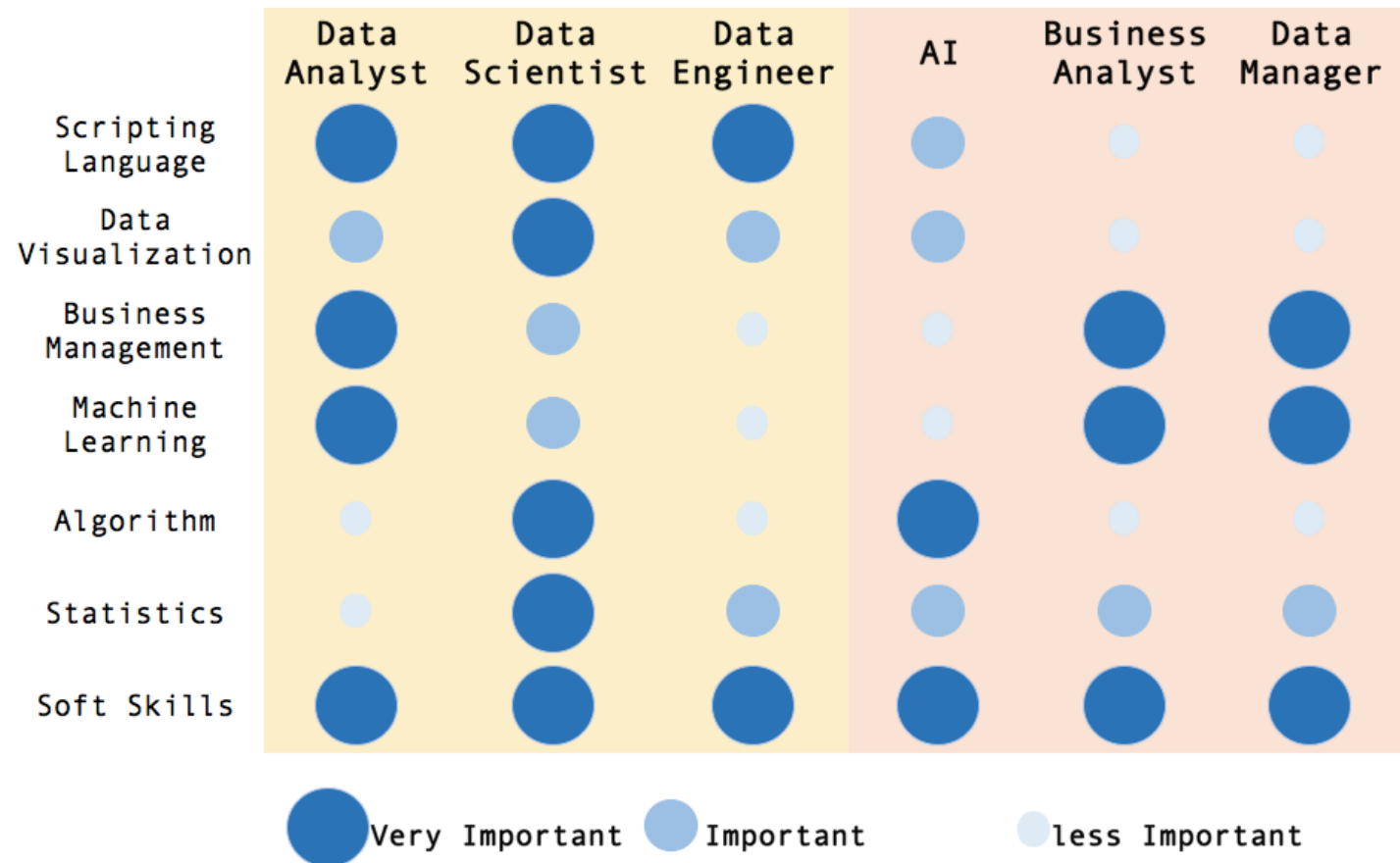
data manager



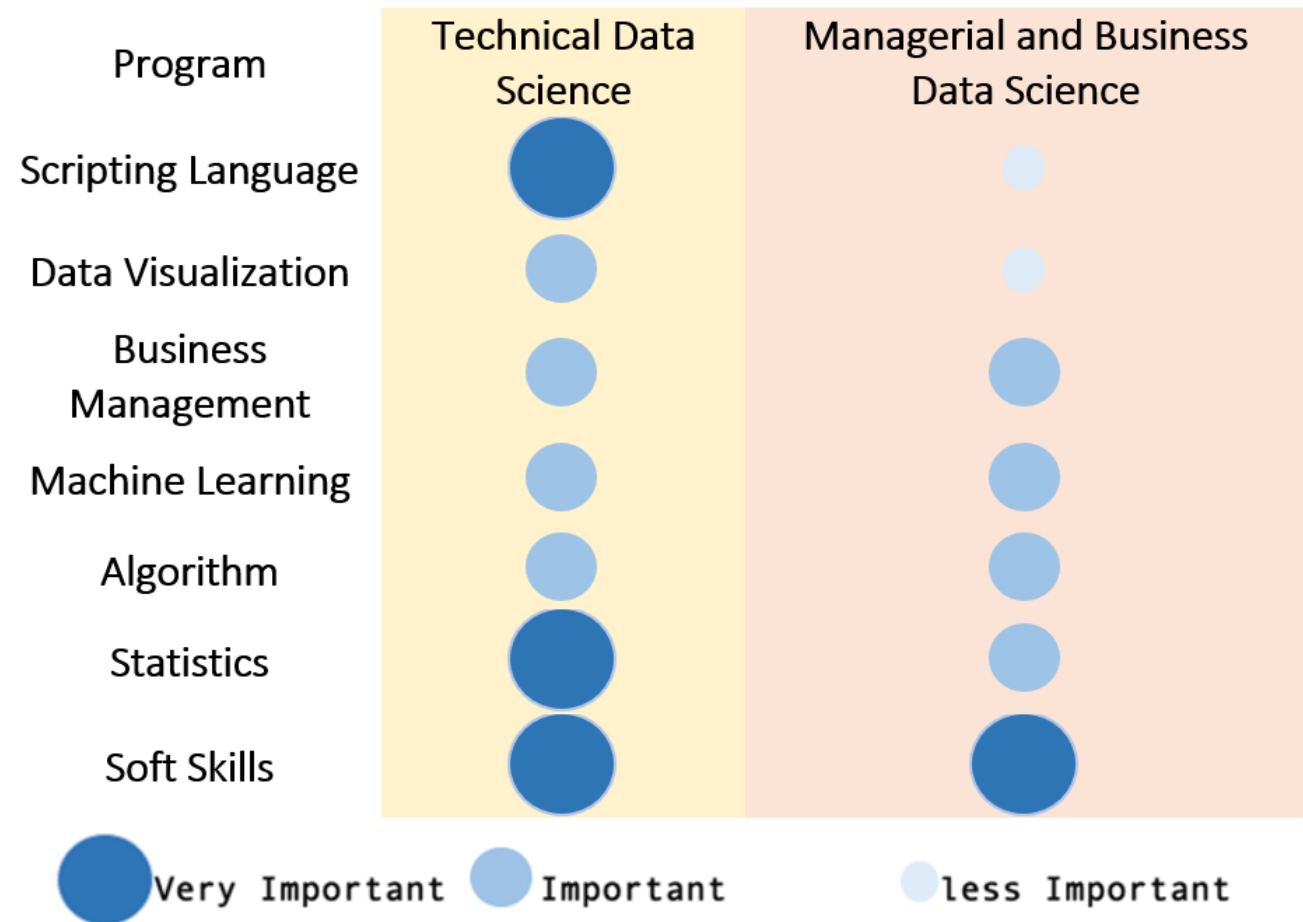
data scientist



Job Skills



Courses Skills



M.D.S.A.

Semester 1

- Introduction of Data Science
- Data Wrangling
- Statistics
- 1 required course in data visualization

Semester 2

- Cloud Computing
- Business Communication & Analytics
- 1 required course in machine learning
- 1 required course in Algorithm

Semester 3

- 1 required course in business & management
- 1 free elective course

Semester 4

- Capstone Project

M.B.A.I.

Semester 1

- Introduction to Data Science
- Foundations of AI
- 1 required Statistic course
- 1 required Algorithm course

Semester 2

- Knowledge, Visualization and Communication
- Business Communications & Analytics Consulting
- 1 required course in machine learning
- 1 required course in business management

Semester 3

- 1 free elective course
- 1 free elective course

Semester 4

- Capstone Project

EdTech Startup

EdTech Startup

Users

- People who are interested in data science
- People who want to improve their skills in data science area
- Potential employers and employees in data science area

Questions

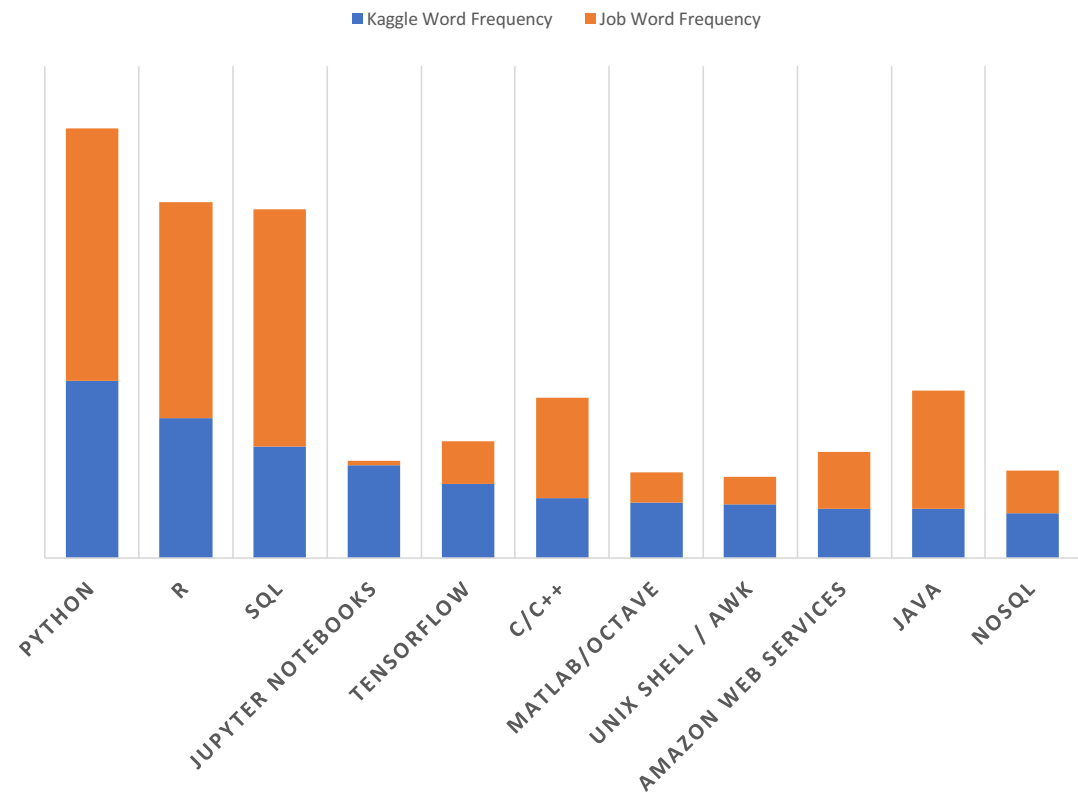
- How to help people to know data science and improve their technical skills?
- How to connect employers with our users ?

EdTech Startup

Solution 1

- Provide online courses about popular skills for users
- Provide practice sets and discussion board

TOP 10 KEY WORDS



EdTech Startup

- According to K-Means analysis, we will emphasize skills in higher class.
- People will be more interested in skills which are in class 2.

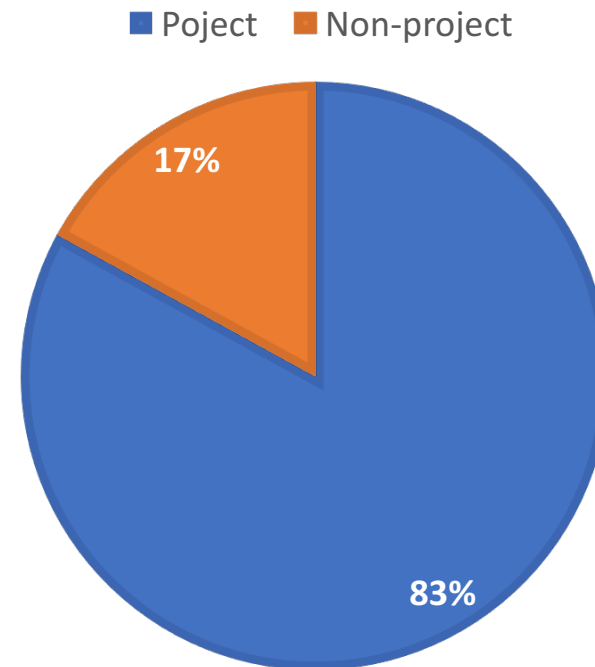
Keyword	Class 0	Class 1	Class 2
Python			
R			
SQL			
Jupyter notebooks			
TensorFlow			
C/C++			
MATLAB/Octave			
Unix shell / awk			
Amazon Web services			
Java			
NoSQL			

Skills Classification Table

EdTech Startup

Solution 2

- Invite companies to provide open projects with realistic datasets on our website
- Users can upload resumes directly on our website, and potential employers can easily check their works here.



Percentage of Data Science Programs with Project

Question?