"The world's most valuable resource is no longer oil, but data" (Economist, May 6th 2017)

As Oil of the era of the 4th industrial revolution, Data is the most valuable resource: an immensely untapped valuable asset. The tech giants such as Facebook, Alphabet (Google's parent company), Amazon, Apple, Netflix and Microsoft have already become data companies and are fighting to get more data in the faster and more efficient way in the silence wars. Even the industrial giants such as GE and Siemens now sell themselves as data firms. Most skills and technologies related with AI (artificial intelligence), machine learning, fin tech, self-driving car, IoT, cloud computing, which are the top keywords in portals and mass medias, are also associated with large scale data or big data. Now Data play the same role of Oil in the 18th Century, in the industrial age. The data age and the era of data science have come, the data scientists are called the sexiest job of the 21st Century (Harvard Business Review, Oct. 2012). Annual demand for the fast-growing new roles of data scientist, data developers, and data engineers will reach nearly 700,000 openings in US by 2020. By 2020, the number of jobs for all US data professionals will increase by 364,000 openings to 2,720,000 according to IBM. (Forbes, May 13, 2017)

Elite's classes are more oriented to data(analysis/visualization) and math from the beginer's level unlike the typical coding classes of other coding institutes in order to keep up with the stream of times of AI and data science.

Drew Cornway, a data scientist created the famous Data Science Venn Diagram to explain data science and must have skills for data scientists as below.



While focusing on the hacking(programming) skills and math/statistics, our programs are designed depending on the personal level of students.

- **Python programming course (5 months, 2 hours/week)**: python programming basic, python for math, basic data analyses with pandas, data visualization with matplotlib, seaborn, plotly
- Math, statistics, and basic statistical learning (5 months, 2 hours/week): Math and basic statistics, A/B test, introduction to statistical learning, Python coding practice for exercises.
- Data science regular course (12 months, 2 hours/week): For the students who completed above 2 courses. More in-depth python programming and statistics, data preprocessing and EDA, various machine learning models and algorithms encompassing supervised learning and unsupervised learning. The detail course curriculums will be customized depending on the levels of the enrolled students. This course includes 4 case studies and 2 month of capstone project which can be used for college entrance portfolio.
- Data science summer boot camp (3 months, 10 hours/week): Summer vacation boot camp with the data science regular course curriculum.
- **Play with Kaggle**: For advanced students, preparing
- Deep learning and AI: For advanced students, preparing

Instructor

Alex Seong (Data Scientist, S/W Engineer)

Alex has a lot of experiences as a S/W and data scientist for long time in US and Korea. He is working on lowering the threshold for young students to enter the world of data science easily with the correct understanding and knowledge from the beginning as the era of AI is coming.

Work history

Modoo and Modoo (CEO, present): Developing deep learning base smart doorbell for the hearing-impaired, and dynamic closed caption with speech/speaker recognition systems for the hearing-impaired.

ClearVista Comm (San Francisco, CA): Provided Verizon mobile hostpot data roaming service, implemented customer churn prediction and abnormal usage pattern detection systems with machine learning algorithms, developed content based web site recommendation system using AWS Common Crawl data.

WAP Telecom (Korea): Developed and launched free of charge mobile international call service that was the first free service in South Korea.

IbizSoft (San Jose, CA): Developed data driven dynamic advertisement system based on data mining on user behavior log data.

LG-EDS Systems (Korea): Developed the billing system for Korea Telecom(KT).