

1135-I1-1137 **Aihua Li*** (lia@mail.montclair.edu), 1 Normal Avenue, Montclair, NJ 07043. *Emerging Data Science and Mathematics in Classroom – A PIC Math Approach.*

In my recent PIC Math class (Preparation for Industrial Careers in Mathematics), I organized 4 student groups each of them working on an industry problem given by our industry conduct. All projects dealt with data analysis and 3 of the 4 worked on large data. It is evident that data science techniques played an important role in solving these problems, which can be seen from the project titles: 1. Search for Nearest Correlation Matrices to Guide Risk Management of Stock Activities 2. Mathematical Modeling of Upper Tolerance Limits for Metal Concentrations in Certain Regions 3. Mathematical Modeling of Likelihood of Customers' Buying at Staples 4. Group Marketing Analysis of the Influence of Email Responses on DeBoer's Auto Sales and Services

When working on the projects, students must learn a software requested by the industry representatives and advanced methods to analyze large data. Python, R, and Matlab, were heavily used throughout. I will introduce the organization of the class, benefits students obtained and challenges students faced when working on the projects. Summary of results of the projects will be discussed. (Received September 19, 2017)