**Rice Data Bootcamp Project 3: Texas Workforce Data Projections**

By Michael, Avery, Diamond, Joy, and Tolani

Texas continues to be an economic growth driver for the nation, and as of April 2019 had added 294,200 nonfarm payroll employment positions over the year before - more than any other state. Every employment category tracked by the Bureau of Labor Statistics (BLS) saw increases over the prior twelve-month period - with the notable exception of Information category jobs, which were down statewide by 0.7% (approximately 1,400 positions) over the year before, even as nationwide employment in this field increased.

These and other trends were explored in the **Project 2** that some of us worked on – which used HTML/CSS dashboarding and JavaScript libraries (Leaflet.js, Plotly.js, Chart.js) to explore via clickable map interface the Texas workforce data by industrial sector and multi-county georgraphic region. The back end of the data was analyzed with Excel and Python (pandas) and manipulated with the SQL database format. The final product was uploaded to the web via Python Flask app and hosted on Heroku.

In **Project 3**, to be submitted by August 1, 2019, we will apply machine learning to consider the past several years of Texas workforce data project the 2019 trend for by sector and relative sector job growth across different metropolitan areas and regions of Texas. We will also incorporate the popular dashboarding software Tableau to create a final product that will be attractive, interactable, and easy to use and understand for non-specialists. The final product will be displayed as a Tableau public file.