



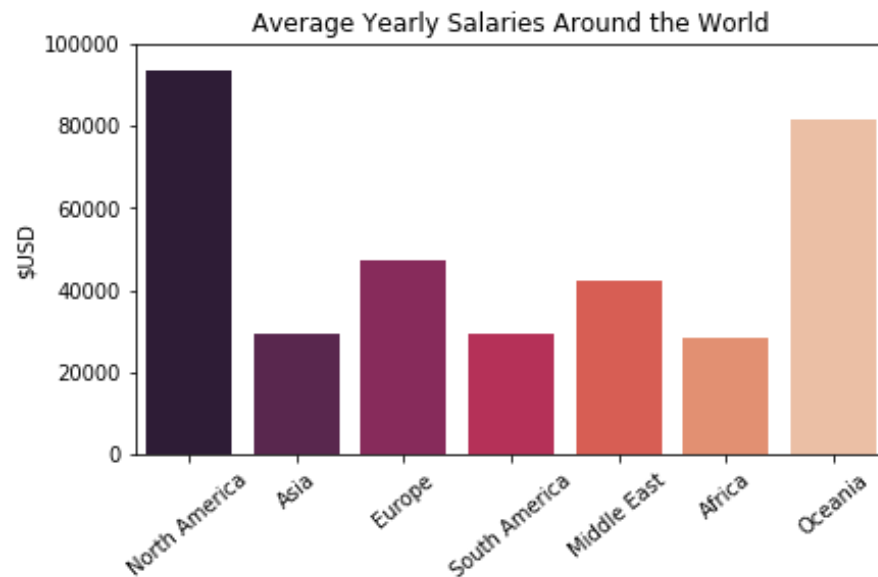
Salary Prediction in Data Science

Francis Cruz - 999539227

Exploratory Analysis

- Location and Age of a data scientist affects yearly salaries.

Location



Global Average Yearly Salary: ~54.4K

Age



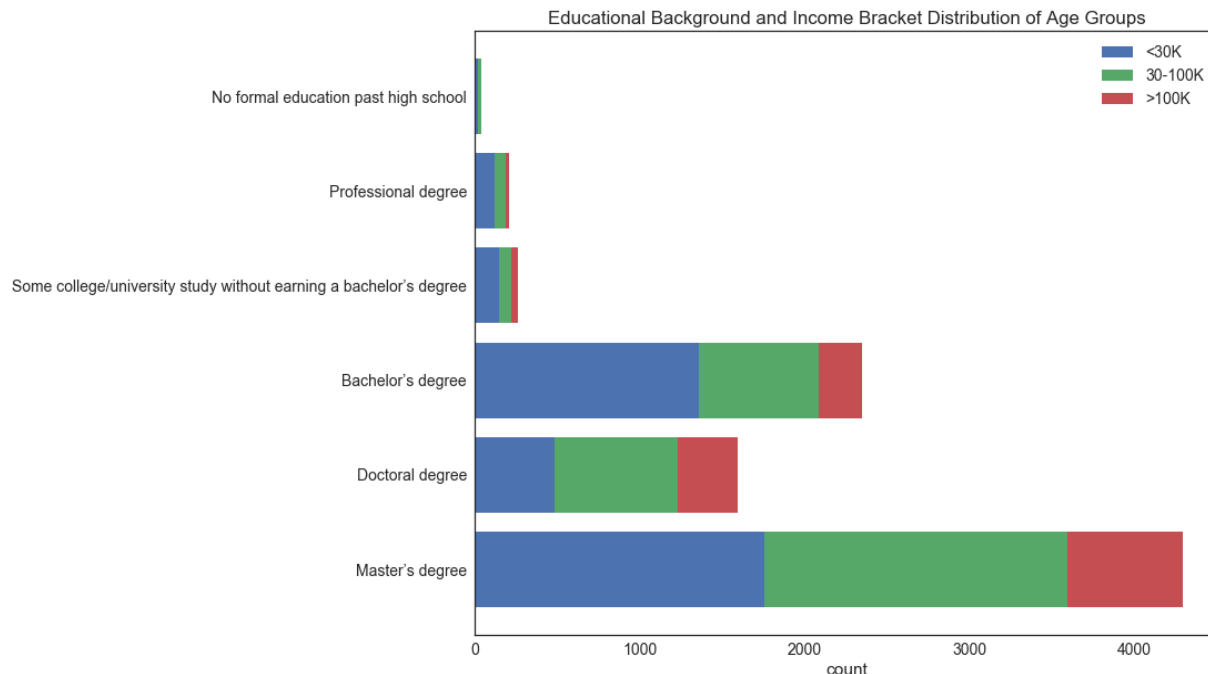
Common Age Group: 25-29

Richest Age Group: 80+

Exploratory Analysis

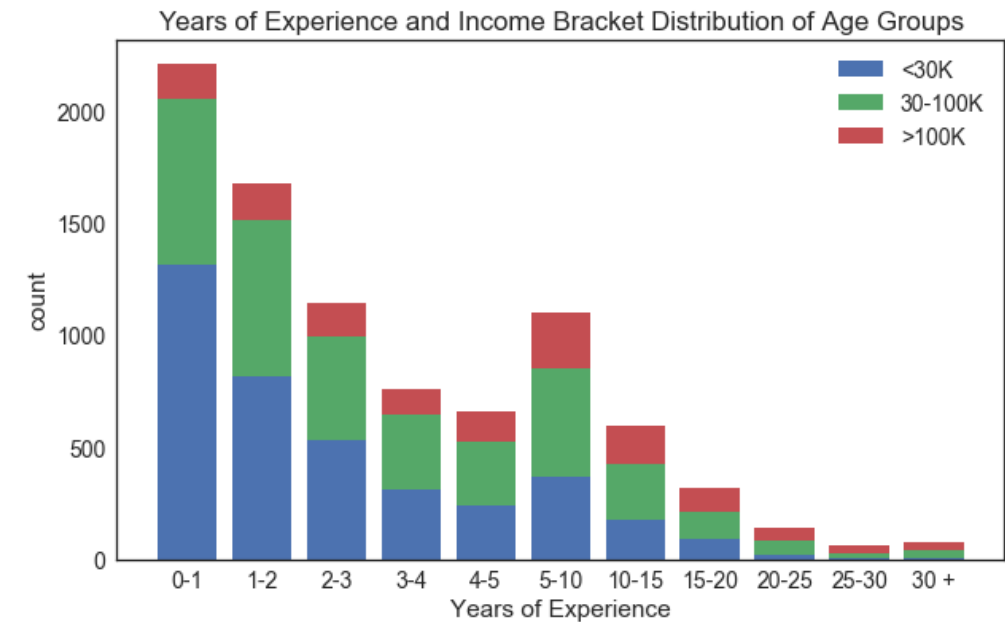
- Better educational background and more job experience lead to higher salaries.

Education



Best Educational Background: Master's Degree

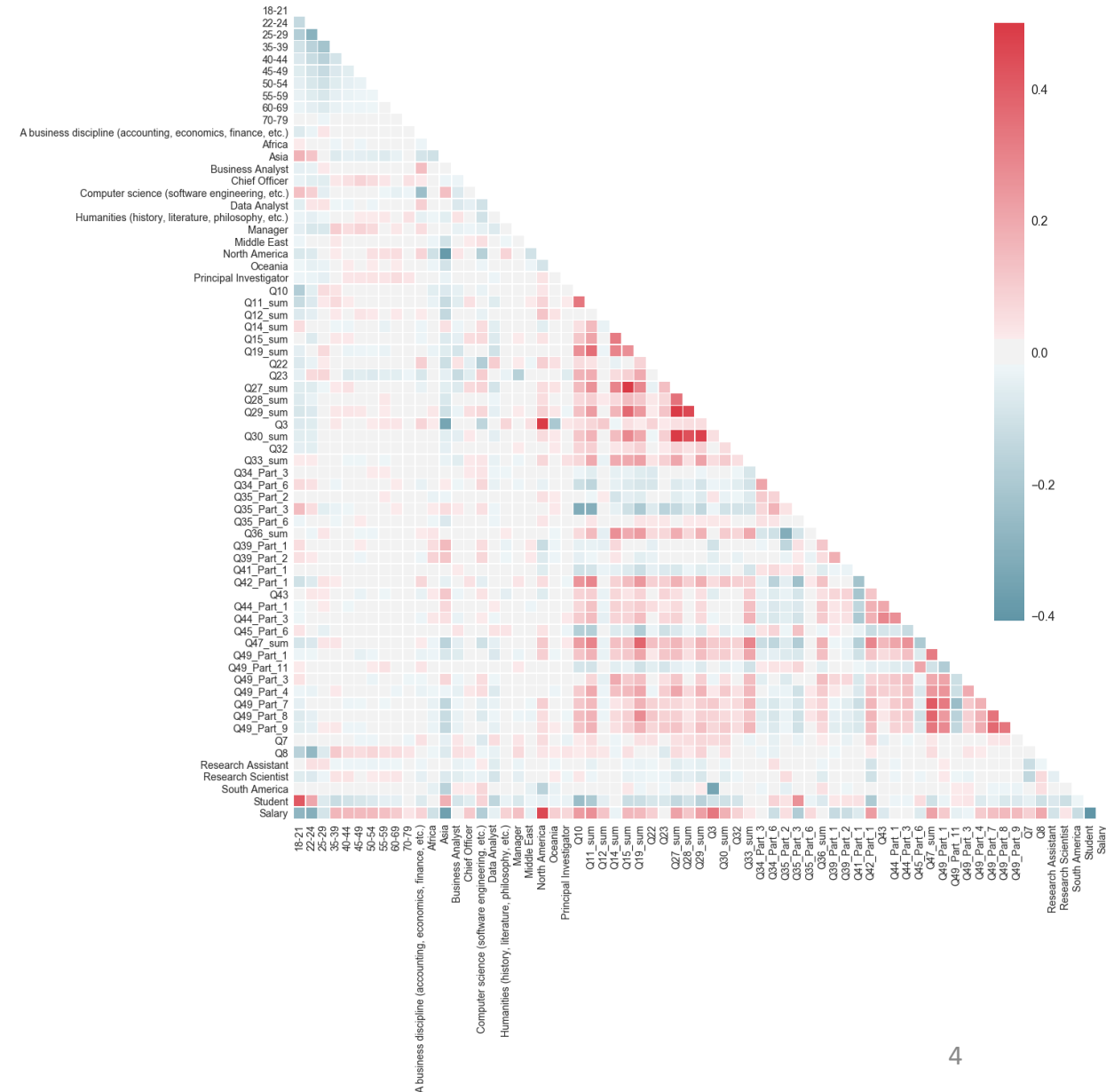
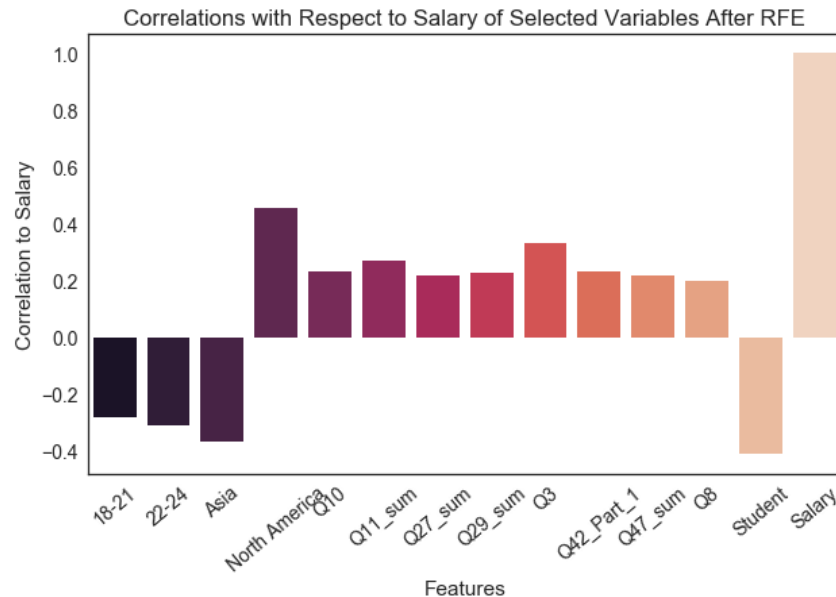
Experience



More job experience, higher income

Feature Importance

- Selected and engineered features of high importance exhibited higher correlations with salary
- These includes:
 - Particular Age Groups (i.e. 18-21, 22-24)
 - Location (Country and Continent of Residence)
 - Proficiency in programming languages and data analytics tools (cloud computing, big data)
 - Occupation



Results and Visualization

- **Gradient Boosting Regressor** (GB) was determined to be the optimal model for the data set.

	Train	Test
R^2	0.75	0.66
RMSE	54.4	63.4

- Optimal model was selected using the tuned hyperparameters resulting in the lowest bias and variance possible.

