Historical Figures in Regression

Collected from various sources primarily Wikipedia

Regression is still a work horse of data analysis. Here are some historical figures we owe thanks to

Sir Isaac Newton (1643–1727): In the early 18th century, Newton applied early forms of linear regression analysis to study astronomical phenomena, such as the equinoxes. He performed averaging of data and ensured that the regression line passed through the average point, laying foundational work for later statistical methods.



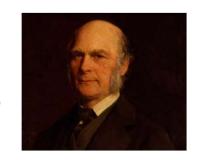
Adrien-Marie Legendre (1752–1833): A French mathematician, Legendre introduced the method of least squares in 1805. This technique minimized the sum of the squares of the residuals between observed and estimated values, providing a systematic approach to data fitting



Carl Friedrich Gauss (1777–1855): The German mathematician Gauss claimed to have used the method of least squares since 1795, but he published his work on it in 1809. He applied this method to determine planetary orbits and further developed its theoretical foundations, including a version of what is now known as the Gauss-Markov theorem.



Francis Galton (1822–1911): An English polymath, Galton coined the term "regression" in the late 19th century while studying heredity. He observed that extreme characteristics, such as height, tended to regress toward the mean in subsequent generations. This observation led to the formalization of regression analysis as a statistical tool.



Karl Pearson (1857–1936): A protégé of Galton, Pearson advanced regression analysis by developing the correlation coefficient, quantifying the degree of relationship between variables. His work laid the groundwork for the field of biometrics and the broader application of statistical methods in biology.



Sir Ronald A. Fisher (1890–1962): Fisher made significant contributions to statistics, including refining regression techniques. In the early 20th century, he introduced the concept of maximum likelihood estimation and provided a more general framework for regression analysis, extending its applicability beyond the assumptions of normality.



Olive Jean Dunn (1915–2008): An American mathematician and statistician, Dunn is renowned for her work on confidence intervals and multiple comparisons. Her 1956 doctoral dissertation, "Estimation Problems for Dependent Regression," laid the groundwork for her contributions to regression analysis. She also authored the textbook "Basic Statistics: A Primer for the Biomedical Sciences.



Marie Davidian: An American biostatistician, Davidian is recognized for her contributions to longitudinal data analysis and precision medicine. She co-authored "Nonlinear Models for Repeated Measurement Data," which addresses complex regression models in biomedical research.

