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Filippo Posta* (filippo.posta@estrellamountain.edu), Phoenix, AZ. *Football match forecasting project as mean to foster research opportunities during first two years of college.*

A common issue with STEM students is that they are capable of repeating what they already know, but they have a hard time extrapolating their knowledge to practical problems. Sports analytics provides a good umbrella of possibilities to apply statistical and mathematical skills to problems that are of interest to the students. This talk summarizes the results and experiences of creating mathematical models that are solely based on the expected goal statistics obtained from a publicly available database. We created three probabilistic models based on expected goals statistic and compared them with two well-established probabilistic models using binomial deviance, squared error, and profitability in the betting market as evaluation metrics. Our best model adjusted the expected goal statistics for home-field advantage and outperformed the two probabilistic models used as gold standard. Two of our models were profitable under certain betting conditions. Our approach provided a framework amenable to students with basic statistical knowledge without sacrificing the potential impact of the findings. (Received September 01, 2020)