

\$1 vs \$100 Explanation of Linear Regression

Michael Liu

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Preface

Over the first month studying as a first year master student in computer science, I have learnt incredible powerful machine learning techniques from my three different courses: probabilistic and decision making, web recommender system and discrete & continuous optimization. One thing that stood out to me the most is that all three courses have introduced one important technique: **linear regression**, and they all have distinct interpretations of this same concept. Therefore, in this article, I want to summarize the various explanations of linear regression from the easiest to the most unique. Although my title is called '**\$1 vs \$100 explanation of linear regression**', all three are equally important to address.

\$1 - Linear Regression

\$10 - Linear Regression (Bayesian Network)

\$100 - Linear Regression (Dimensional Mapping)