

MINI-SEMINAR FOR SECOND-YEAR PH.D. STUDENTS

Department of Statistics

Finding An Optimal Strategy For Mastermind

by

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ABSTRACT

I have attempted to find an "optimal" strategy for a one-player version of the game Mastermind using an exponential model on a simple set of features. I used Monte Carlo Simulation to generate data under an initial strategy, and then implemented a gradient descent algorithm to determine the optimal strategy using estimates obtained via Importance Sampling. For the mini-seminar I will be presenting my results along with a brief discussion of Importance Sampling in general.