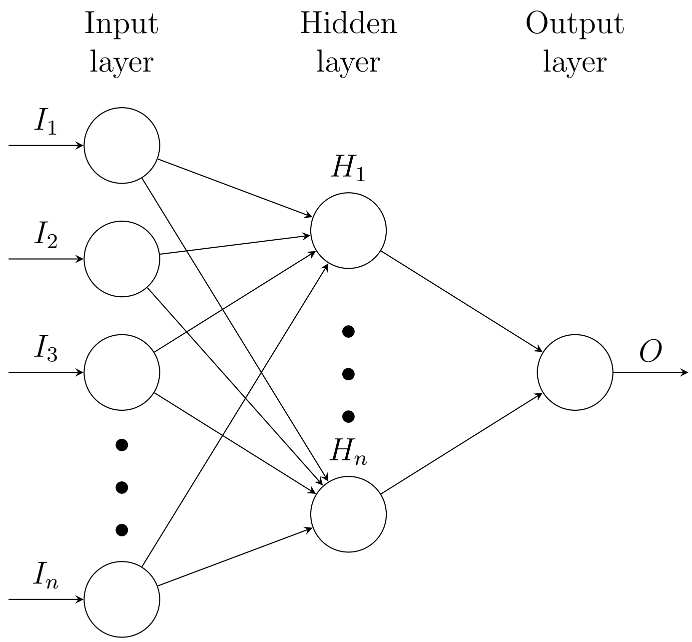
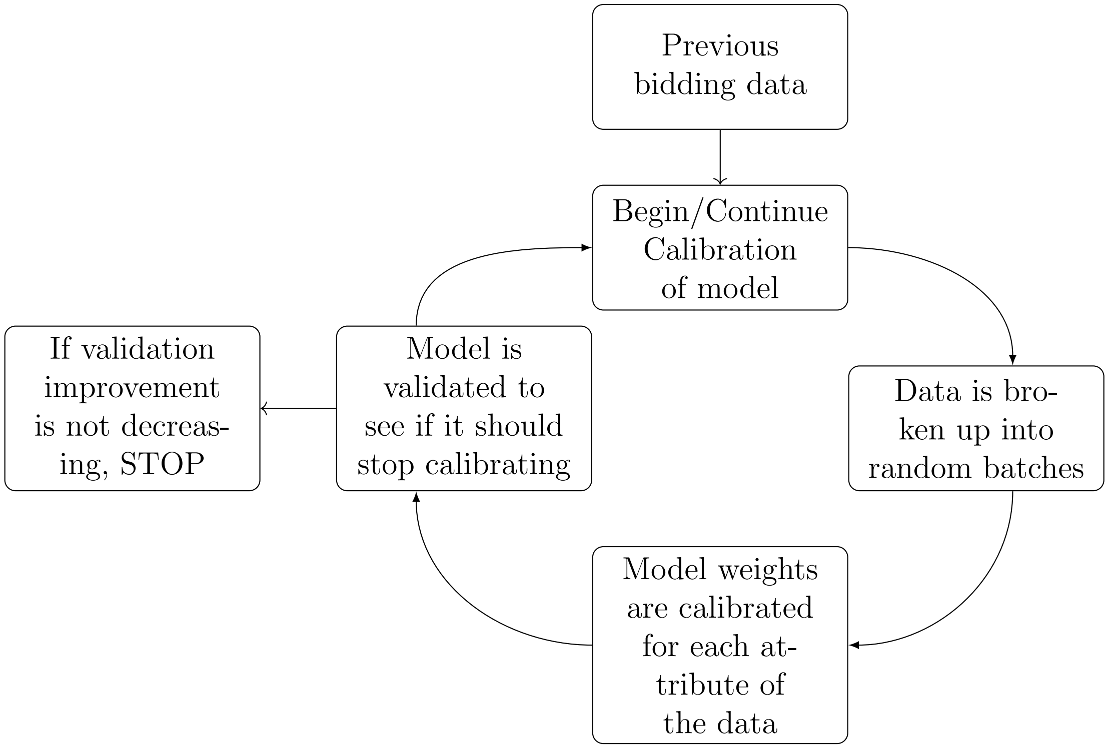
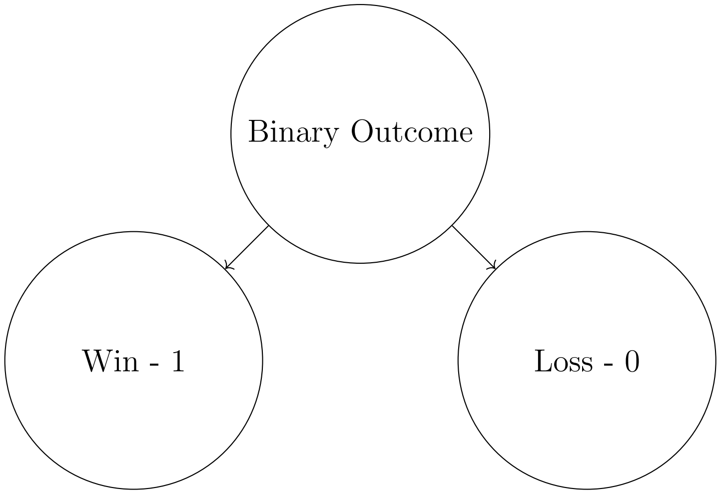
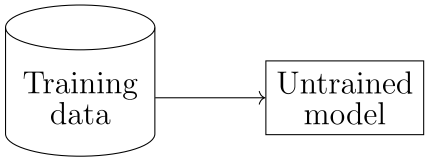

Input layer
Hidden layer
Output layer
I_1
I_2
I_3
I_n
H_1
H_n
O


Previous bidding data
Begin/Continue Calibration of model
Data is broken up into random batches
Model weights are calibrated for each attribute of the data
Model is validated to see if it should stop calibrating
If validation improvement is not decreasing, STOP


Binary Outcome
Win - 1
Loss - 0

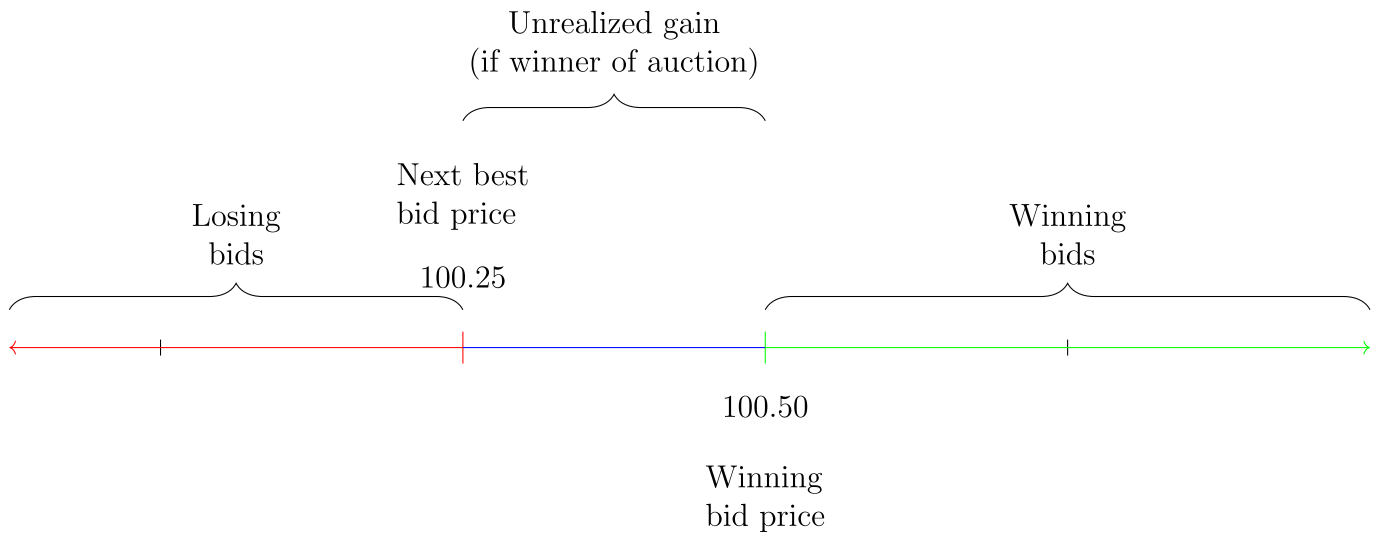
$$
\begin{aligned}
\min\ & c^\top x \\
s.t.\ & Ax = b \\
& x \geq 0.
\end{aligned}
$$

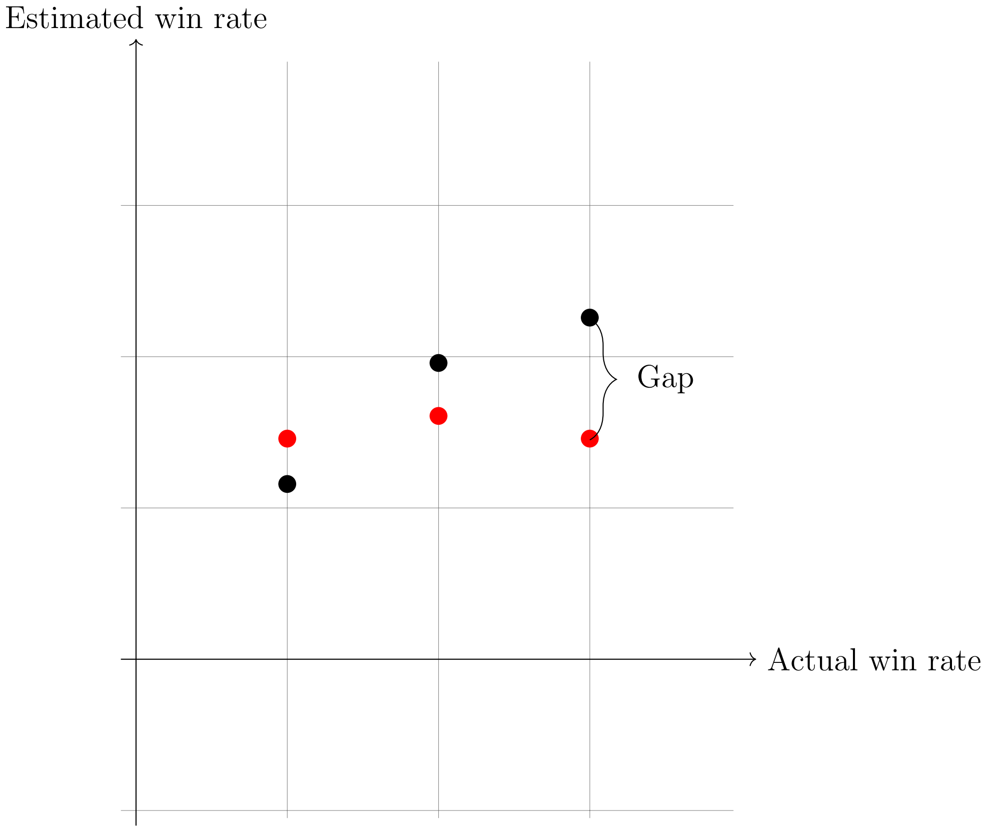


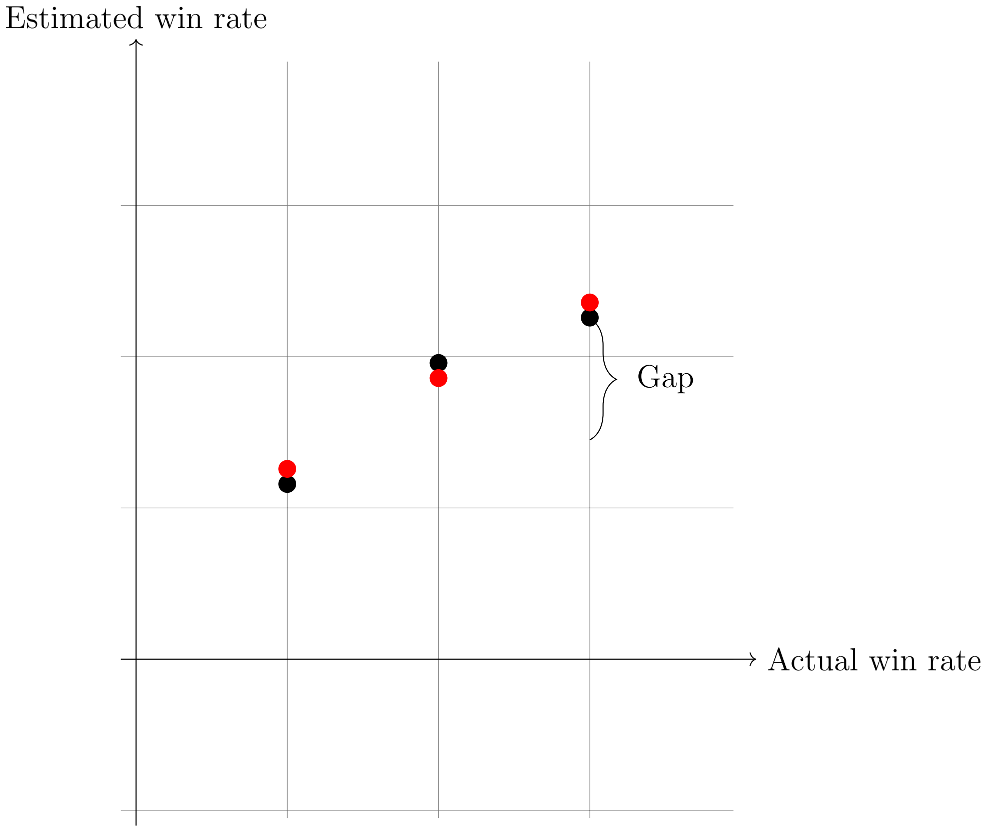
Step 1: Large amount of previous bidding data is fed to the model.

Step 2: The model learns the optimal weights from the data.

$$\begin{aligned}
\min\ & c^\top x \\
s.t.\ & Ax = b \\
& x \geq 0.
\end{aligned}$$


Unrealized gain
(if winner of auction)
Next best
bid price
Losing
bids
Winning
bids
100.25
100.50
Winning
bid price


Estimated win rate
Gap
Actual win rate


Estimated win rate
Gap
Actual win rate