deeplearning.ai

Comparing to human-
level performance

Surpassing human-
level performance

Surpassing human-level performance

Team of humans   0.5%   0.5%
(Baye's proxy)

There are 2 problems here:
① We don't know if we should focus on ↓ bias or ↓ variance
② even if we had to ↓ bias, we don't know what to use as Reference, we've already crossed human ⇒ Any Advice given by human which is deployed into the model will make the model worse from current state.

One human   1%   1%

0.3%

Training error   0.6%

0.4%

Dev error   0.8%

Avoidable bias = 0.1%
Variance = 0.2%

Bias = ?

Variance = 0.1%

- can't comment on bias
Why? you've crossed the proxy Baye's
⇒ Baye's was not 0.5%, so is it 0, 0.1% or 0.2% or 0.3%

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Problems where ML significantly surpasses human-level performance

- Online advertising

- Product recommendations

- Logistics (predicting transit time)

- Loan approvals

Some natural perception problems have also passed humans

① Speech Recognition

② Some Medical diagnosis

– All these problems are learning from structured data
– There is lot of data available for each of these problems
– None of these problems are based on natural perception (which humans are very good at)

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