

AutoML: Introduction

Risks of AutoML

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Risks of AutoML

- ① Users apply AutoML **without understanding** anything.
 - ▶ Users might wonder why (Auto-)ML does not perform well after they passed in poor data.

Risks of AutoML

- ② Users *trust* AutoML too much.
 - ▶ humans might not use human reasoning skills and do not second guess machine decisions

Risks of AutoML

- ③ We enable non-ML experts to use ML without knowing the risks and consequences of ML.
 - ▶ E.g., bias in data and trained models

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 - ▶ **biased and unfair models** due to lack of understanding ethical practices and use of features such as gender and race for predicting outcomes

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 - ↪ Future research topics (as of March 2020)

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- ➌ Can we automatically find ML systems that are less prone to such risks?
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