The World's Most Awesome Slides

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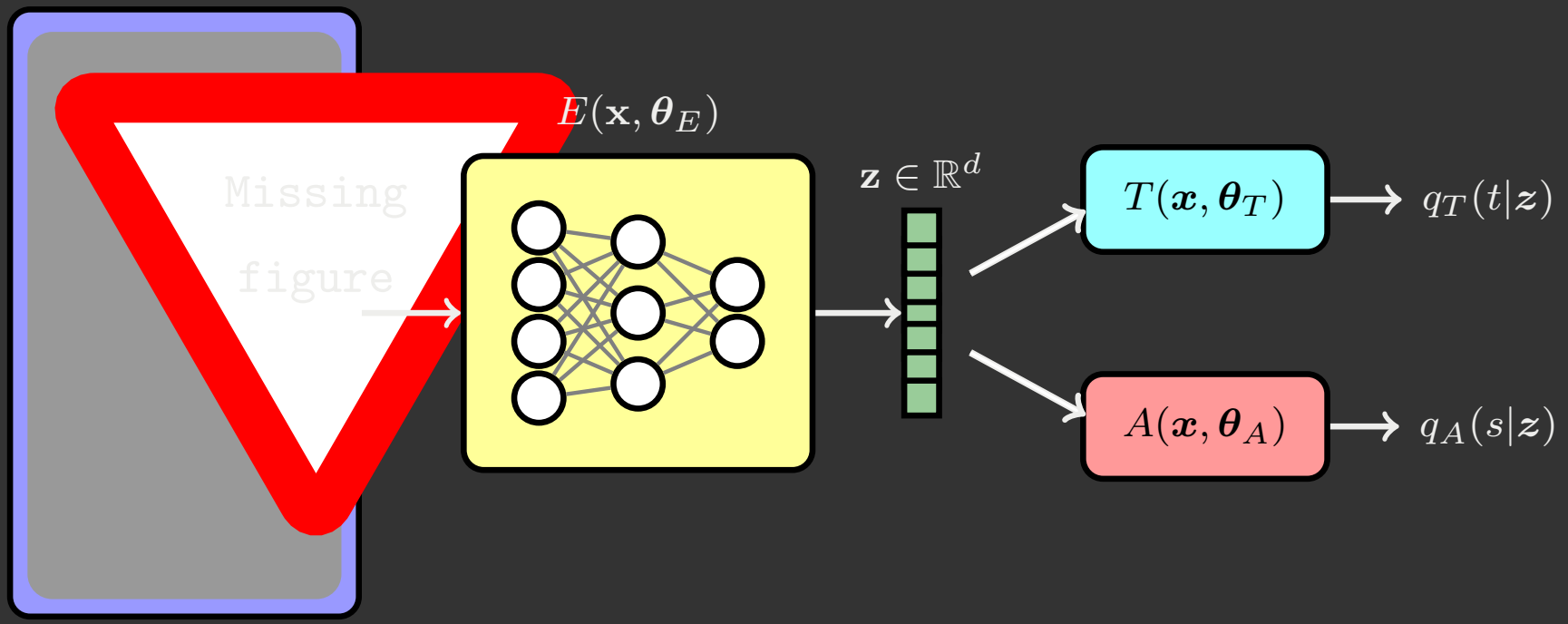
>>> Problem Setting: Adversarial Representation Learning



* Three player game between:
  * Encoder extracts features z
  * Target Predictor for desired task from features z
  * Adversary extracts sensitive information from features z

>>> Maximum Entropy Adversarial Representation Learning

Key Idea

Optimize the encoder to maximize entropy of adversary as opposed to minimizing its likelihood.

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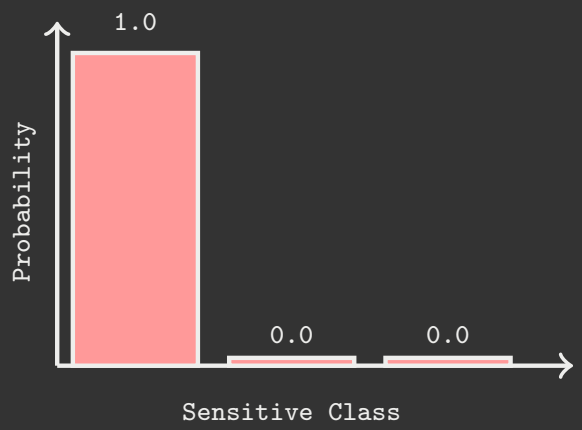

* Encoder

* Equilibrium

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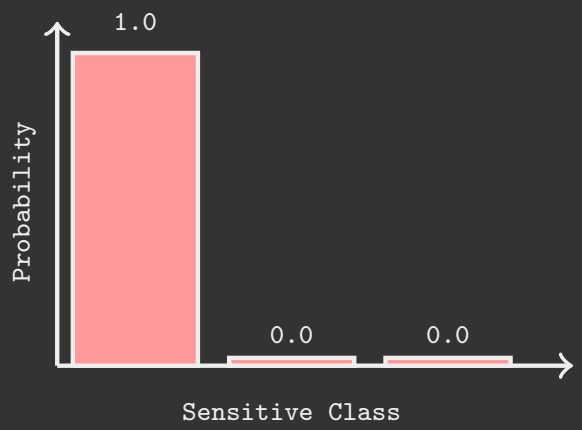

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* Equilibrium

Contributions:

* Theoretical analysis of equillibrium and convergence dynamics.
* Visualization and empirical evaluation on multiple datasets.

>>> Summary

* A striving step towards explicitly controlling information in learned representations.

* MaxEnt-ARL: optimize the encoder to maximize entropy of adversary instead of minimizing likelihood.

* MaxEnt-ARL is practically effective and enjoys theoretical benefits.

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Code:

```
https://github.com/human-analysis/MaxEnt-ARL.git
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More Details: Poster # 175