

Machine Learning

For The People (Instead of Science Oligarchs)

Alexander Jung

Associate Professor

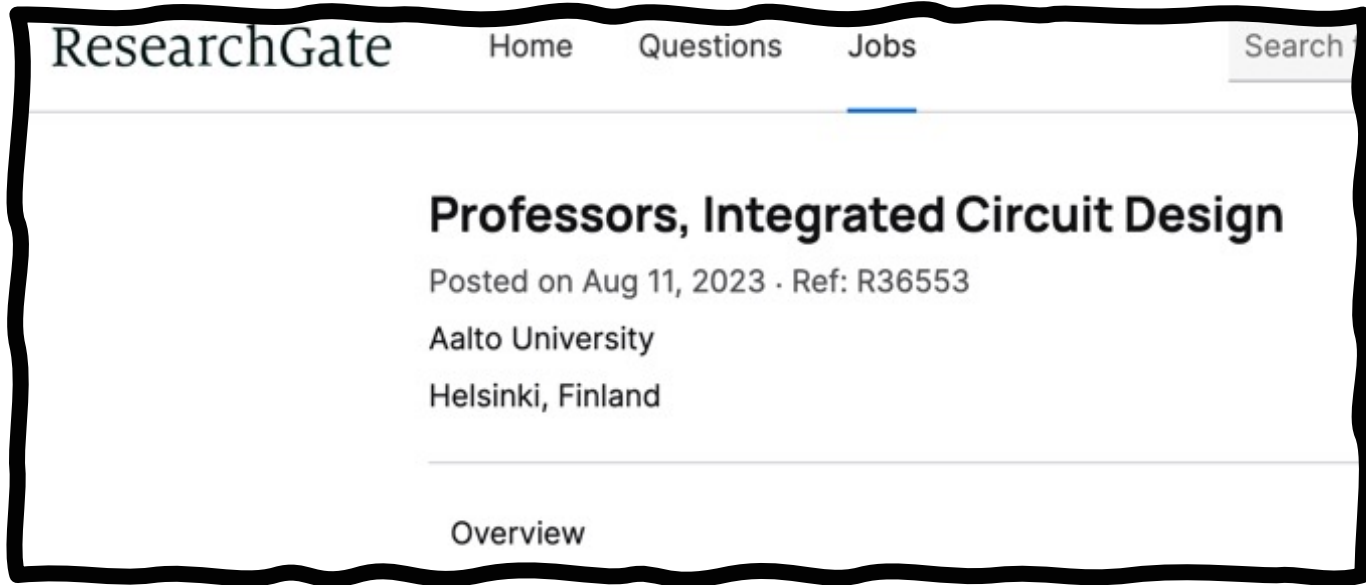
Department of Computer Science

School of Science



Machine Learning (ML) Everywhere

How did you find your current job ?



How did you find your current partner ?

15 Best Online Dating Sites for Academics

15 Best Online Dating Sites For Academics



SJ Tsai

Last Update: March 16, 2023



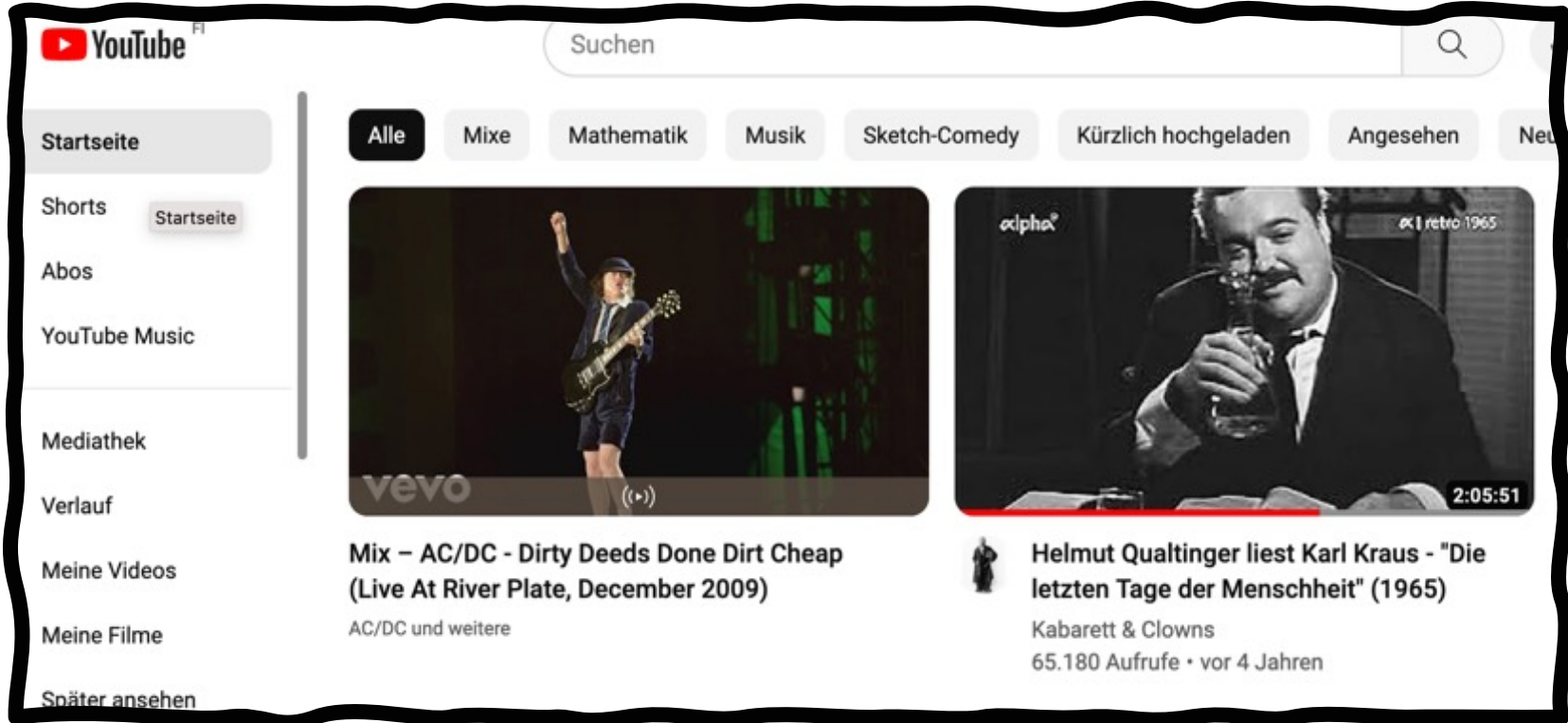
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Category: [Academic Tools](#)

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What to Watch Next ?



Are we controlled by machines?



Daniel Juřena from Prague, Czech Republic, CC BY-SA 2.0
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You tell me !



How Does it Work ?

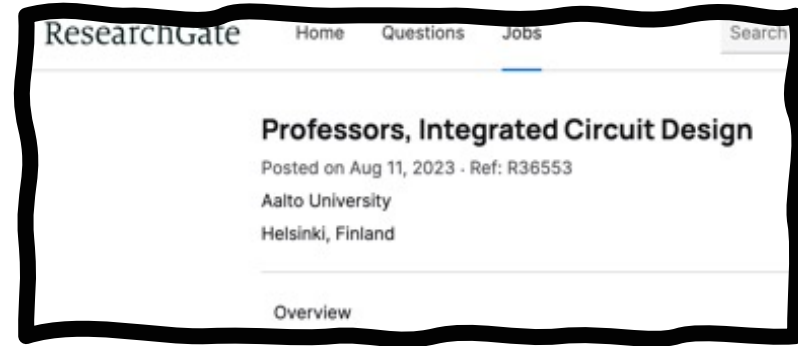
data point = “Alex Jung”



hypothesis h

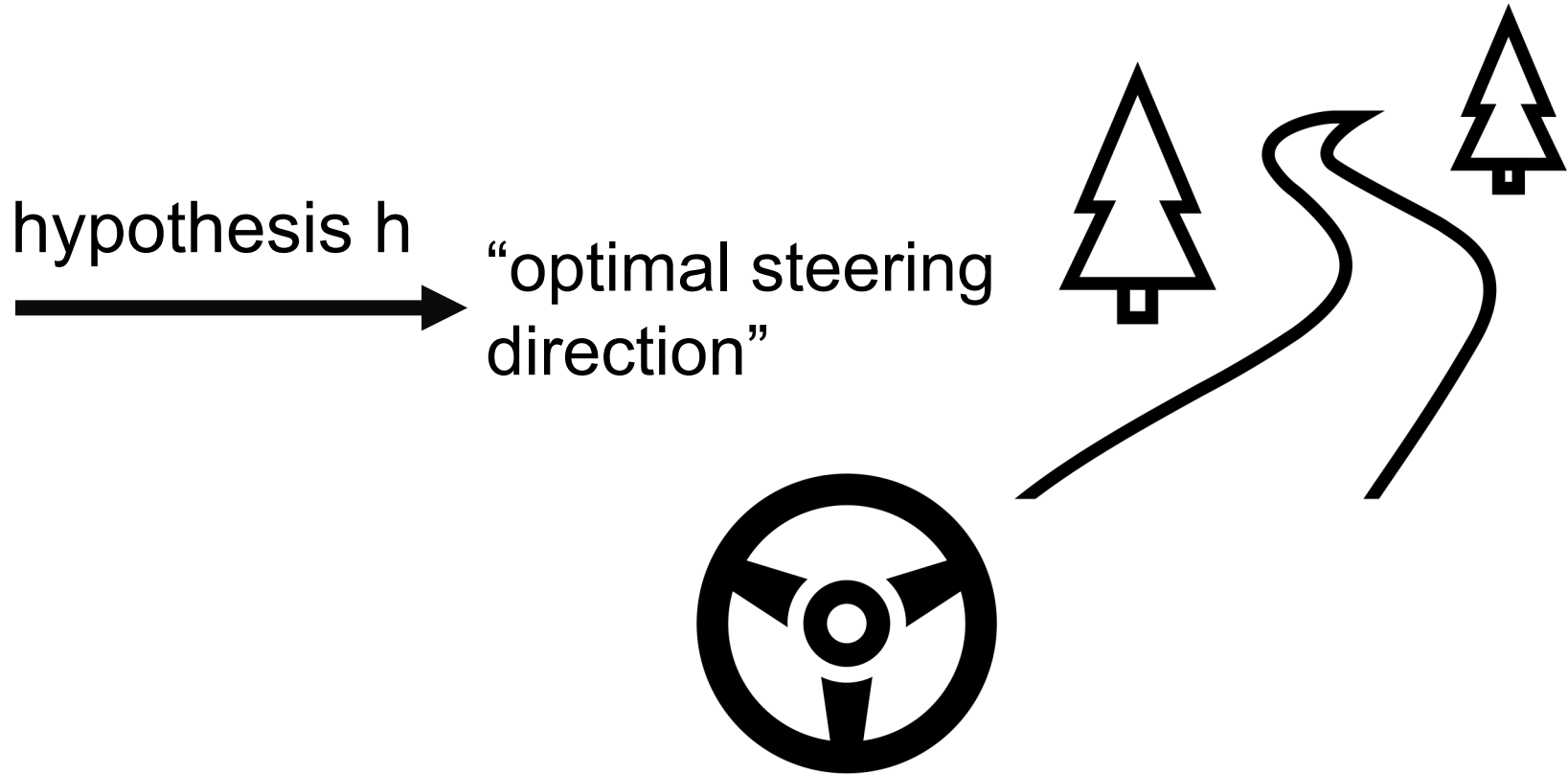


label:
interested in this job ?



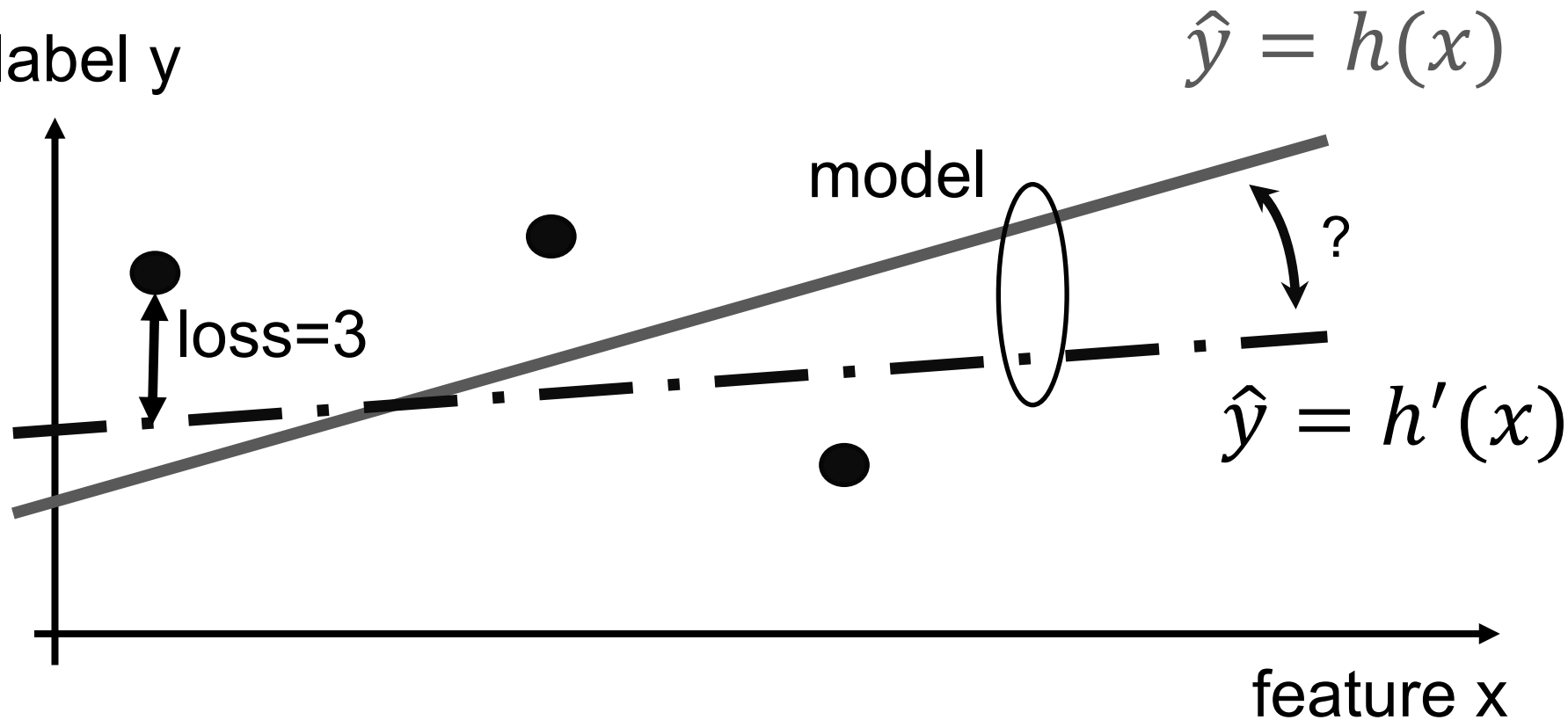
features: age=32, Austria, Phd in EECS, ...

Data Point=Car Ride Moment

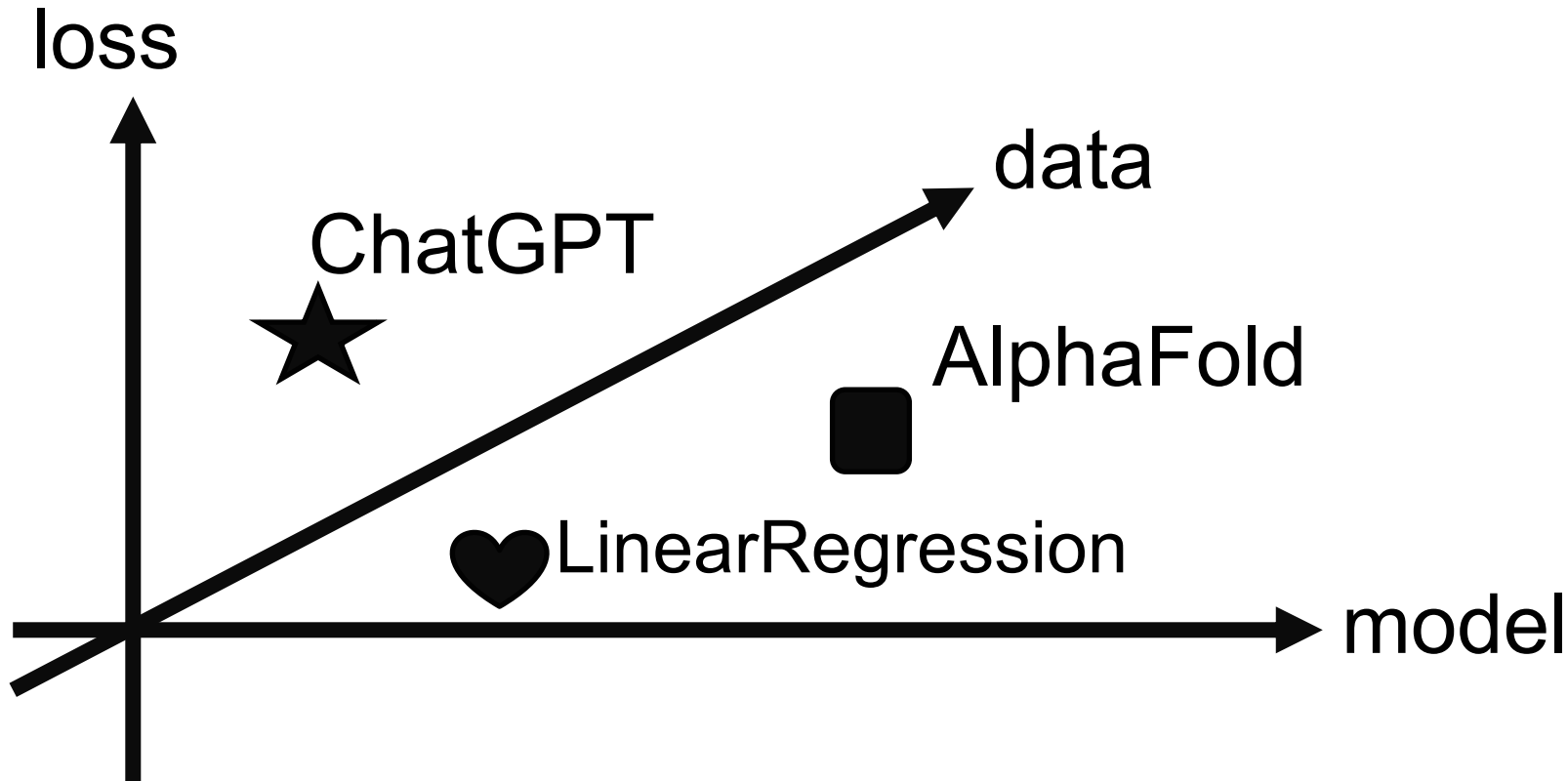


The Principle

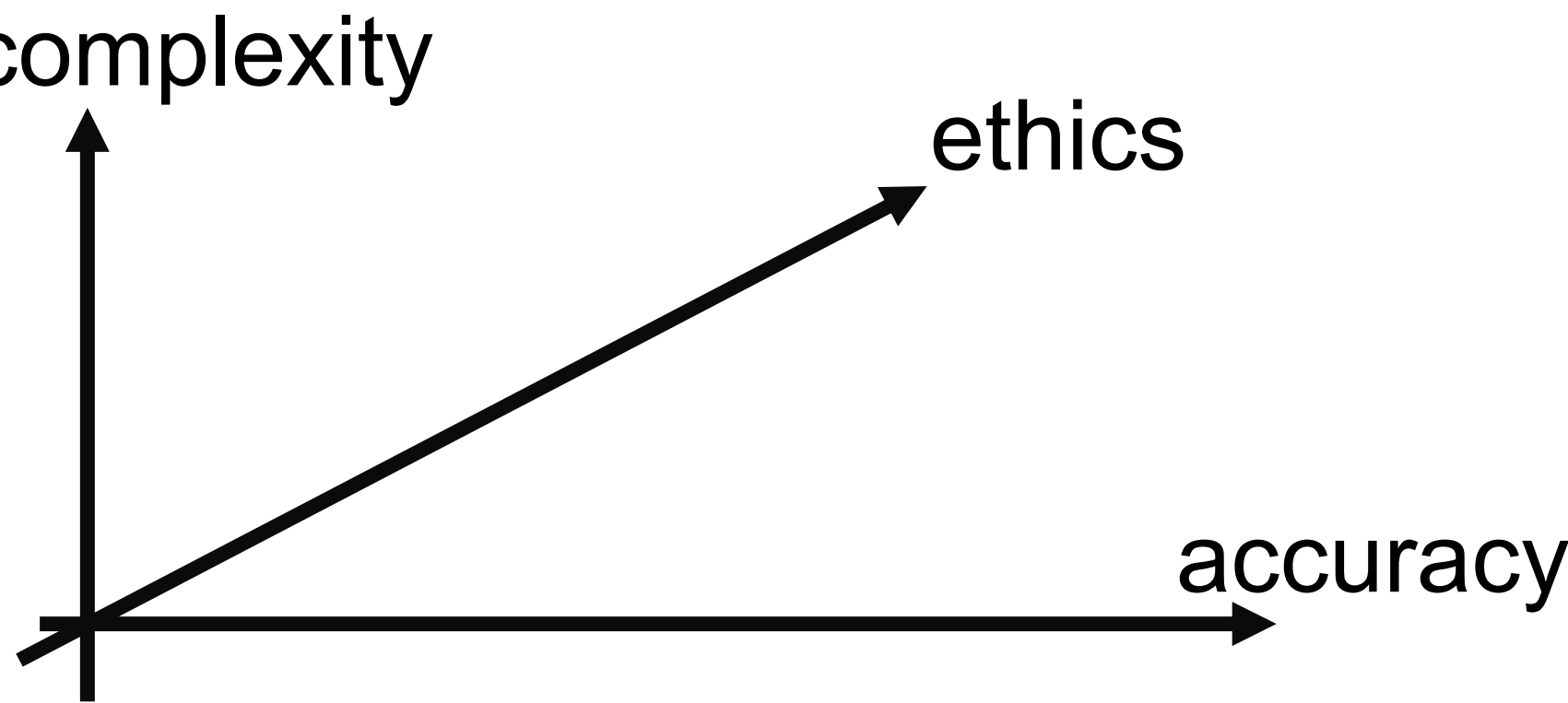
label y



The ML Landscape



Design Criteria

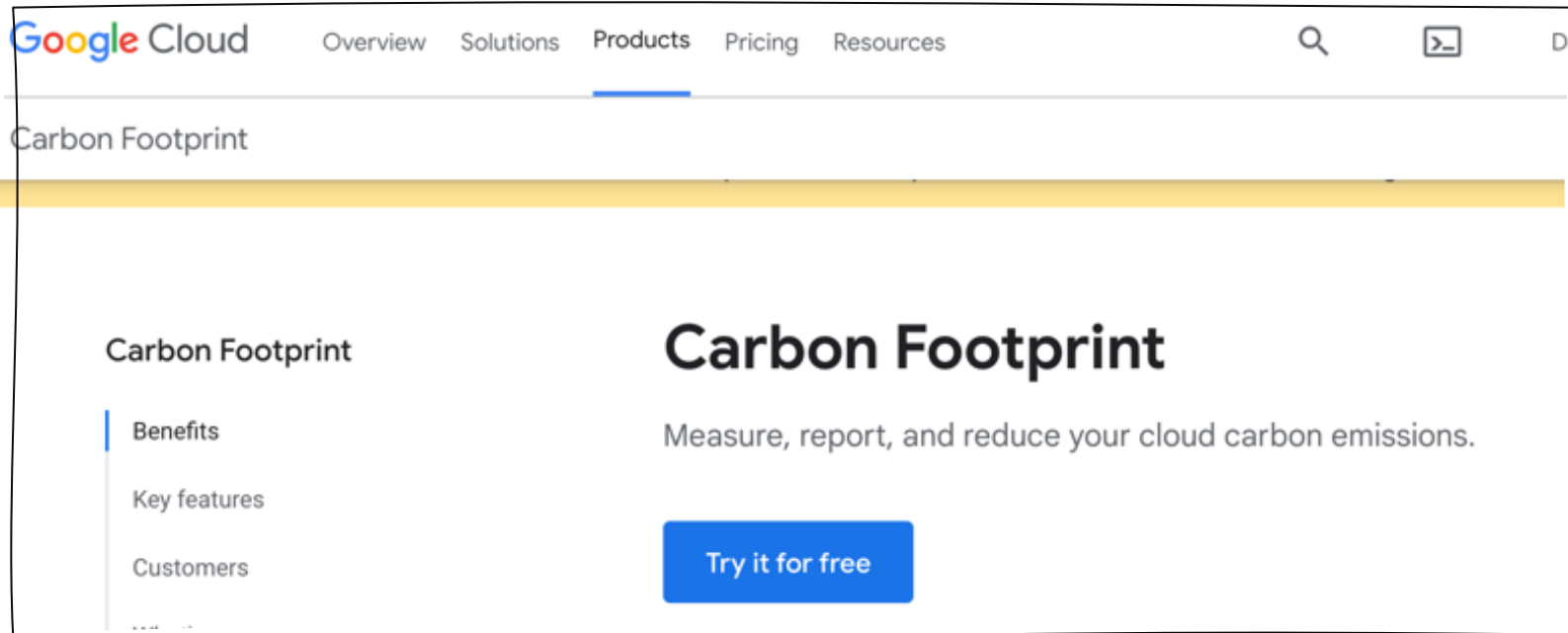


Use minimum amount of compute and training data.

By Anders Hellberg - Own work, CC BY-SA 4.0,
<https://commons.wikimedia.org/w/index.php?curid=77270098>



Minimize Compute



Minimize Training Data

Facebook Moderators Reveal Shocking Work Conditions

Josephine Mariñas • August 21, 2023  Tech News

“Workers also receive ... a 9-minute “wellness” time for when they feel overwhelmed by the emotional effects of their job.”

<https://cloudemployee.co.uk/blog/tech-news/facebook-moderators-work-conditions>

Should we ML scientists care about anything else?



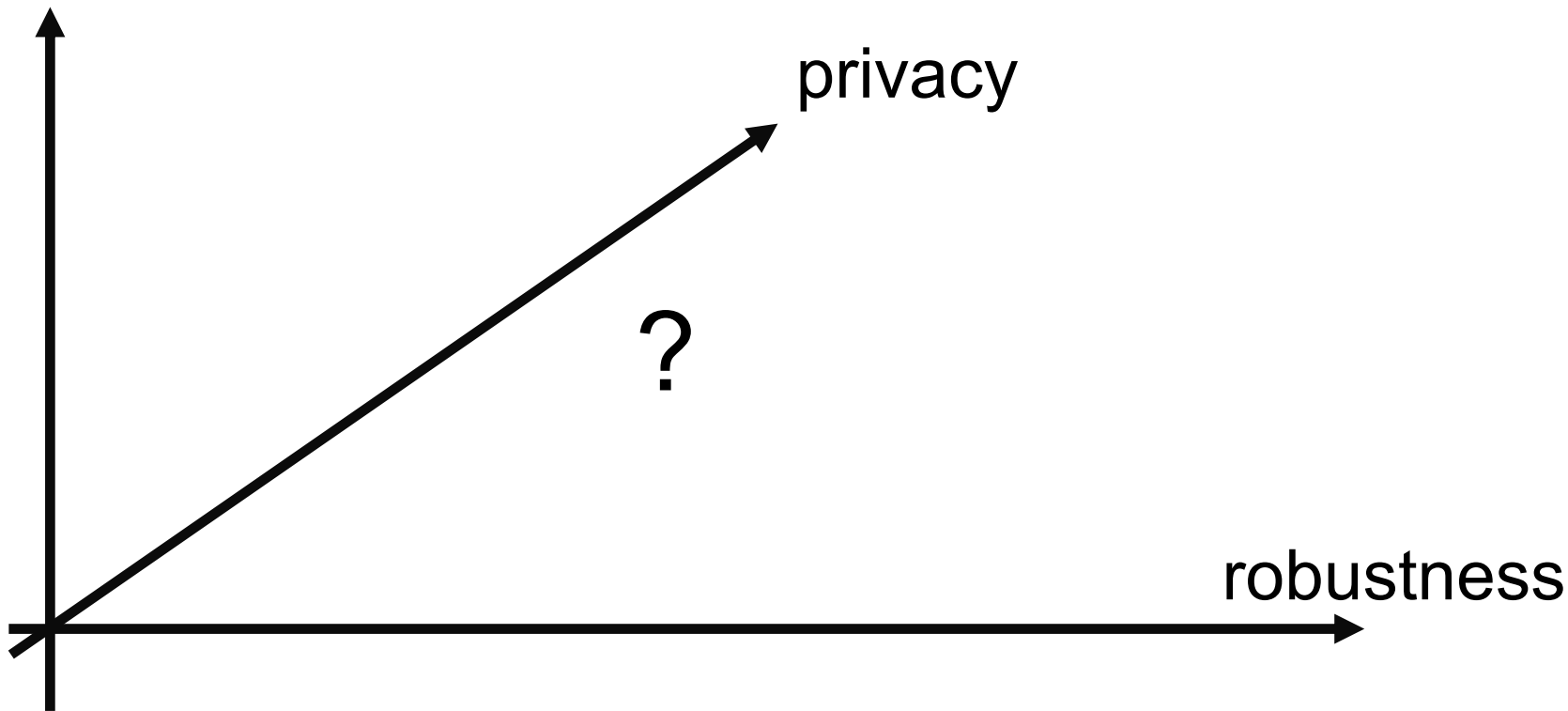
Is NeurIPS Getting Too Big?

23.DEC.2019 · 13 MIN READ

A. Kurenkov, "Is NeurIPS Getting Too Big?", The Gradient, 2019.

Trustworthy AI

explainability

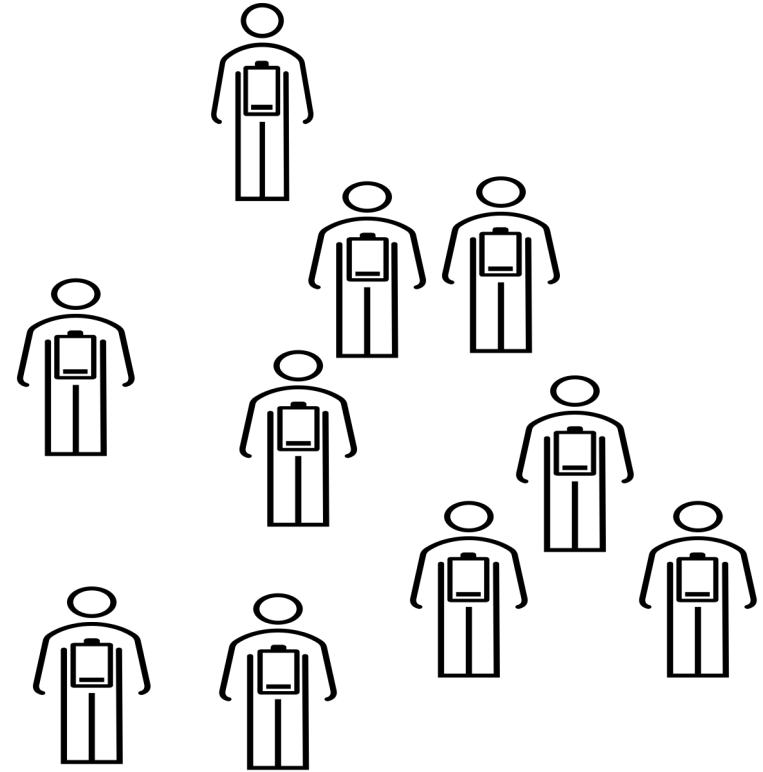
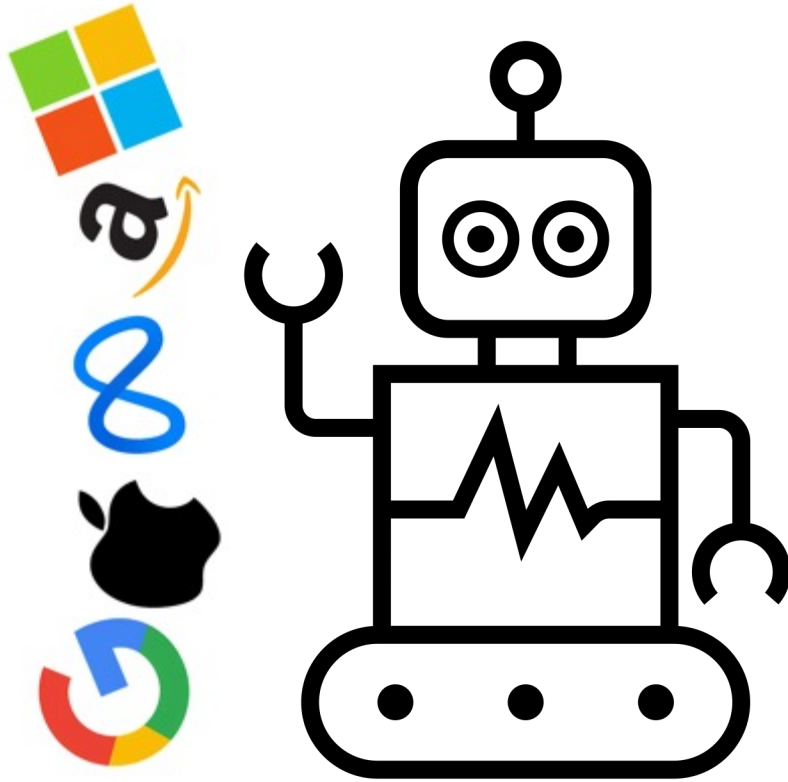


Design Choices Decide Our Future!



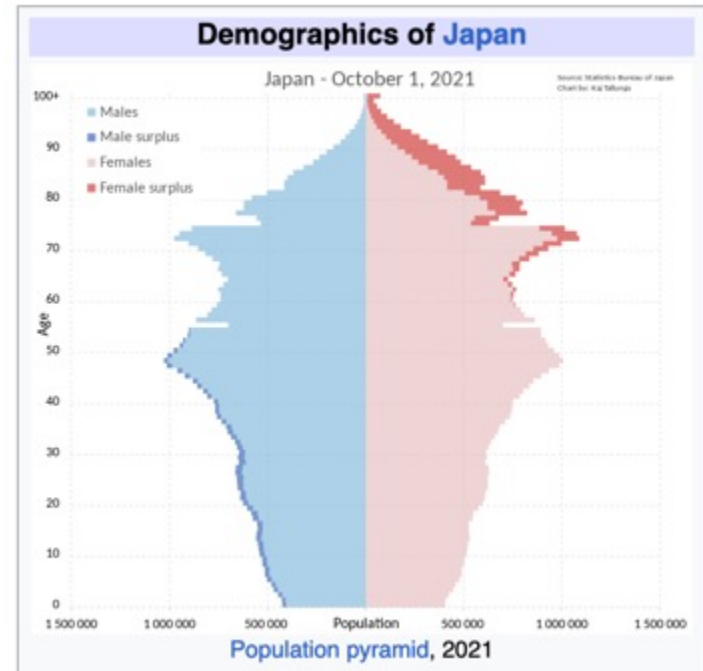
<https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai>

People Serving ML



ML Serving People

https://en.wikipedia.org/wiki/Demographics_of_Japan



<https://www.technologyreview.com/2023/01/09/1065135/japan-automating-eldercare-robots/>

Education is All that Matters!



AJ, "Machine Learning: The Basics," Springer, 2022.

Thank You!