Learning **for** Big Data

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some sampled pages of my keynote talk
in IEEE BigData 2015 Taipei Satellite Session

About the Title

- “Learning **for** Big Data”

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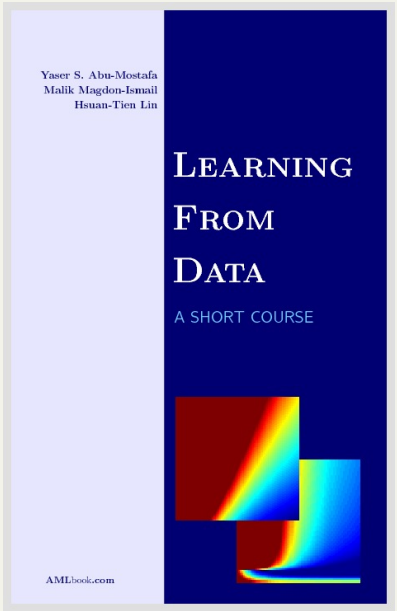

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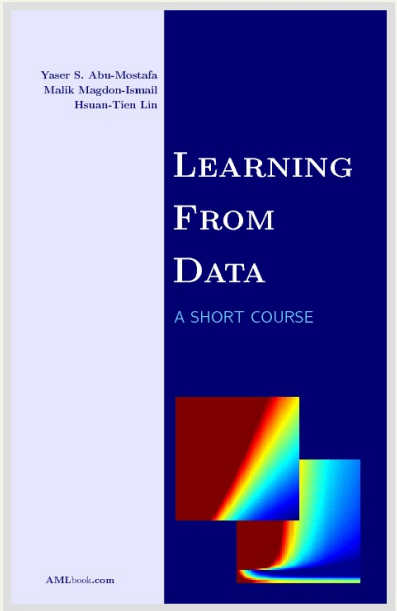

as machine learning researcher

machine learning **for** big data

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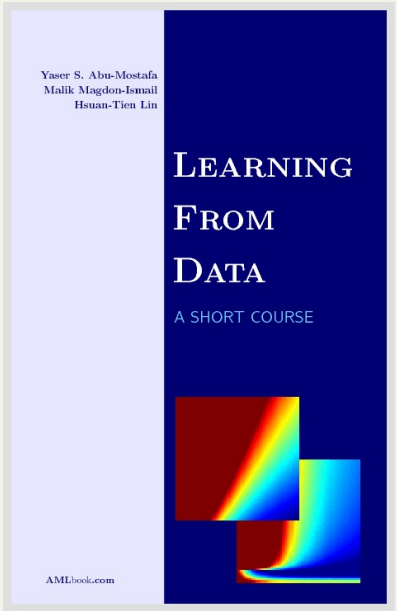

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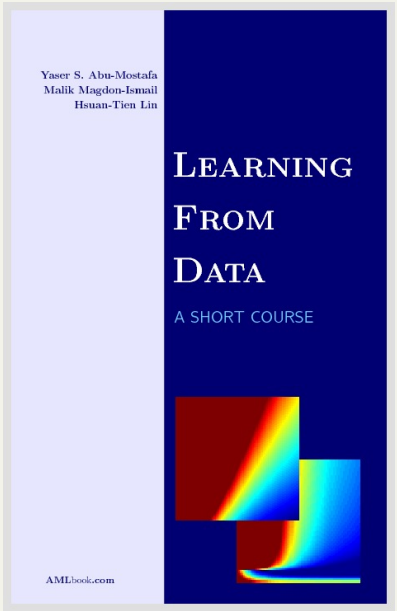

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human learning **for** big data
—**hard!!**

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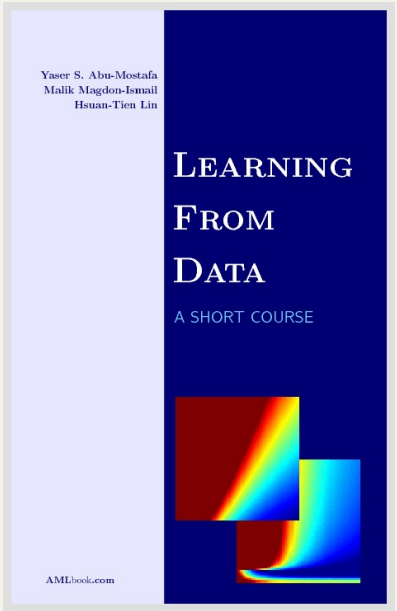

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will focus on **human** learning **for** big data

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I wish I had an answer to that
because I'm tired of answering that question.
—Yogi Berra (Athlete) ☺

Appendix: ML Foundations on NTU@Coursera

https://www.coursera.org/course/ntumlone

When can machines learn?

- L1: the learning problem (☺)
- L2: learning to answer yes/no (☺)
- L3: types of learning (☺)
- L4: feasibility of learning

Why can machines learn?

- L5: training versus testing
- L6: theory of generalization
- L7: the VC dimension (☺)
- L8: noise and error

How can machines learn?

- L9: linear regression (☺)
- L10: logistic regression (☺)
- L11: linear models for classification (☺)
- L12: nonlinear transformation (☺)

How can machines learn better?

- L13: hazard of overfitting (☺)
- L14: regularization (☺)
- L15: validation (☺)
- L16: three learning principles (☺)

☺ $\approx$ must-learn