Conclusion
Conclusion

Statistical Learning Theory, PAC-theory

Graphical models, Neural networks, Fuzzy sets, Association rules

Computer vision, Natural language processing, Information Retrieval, Music & Video processing, Bioinformatics, Physics, Robotics, Finance & Economics, ...

Semi-supervised learning, Active learning, Reinforcement learning, Multi-instance learning, Deep learning
Where to go next

Books:

- “The Elements of Statistical Learning” (Hastie & Tibshirani)
- “Pattern Recognition and Machine Learning” (Bishop)
- “Kernel Methods for Pattern Analysis” (Shawe-Taylor & Cristianini)

On-line materials:

- [http://videolectures.net](http://videolectures.net)
- + Coursera, Udacity, edX

Tools:

- Python, R, RapidMiner, Weka, Matlab, Mathematica, …
\[ s = \frac{a}{2} t^2 \]
\[ \vec{F} = m\vec{g} \]
Why?
Why?
Contemporary Science

Observation → Analysis → Generalization
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Analysis

Generalization

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Analysis

Generalization

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ML

Generalization

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CS & EE

ML

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June 2014
Thank You!