

# Machine Learning

## The Beginning

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# The Basics

- Everything is a math problem (and a vector space)
- Features are king (and most of our time)
- More data is usually better

# The Choices (I)

- Supervised (I know some answers)
- Unsupervised (I don't know much)

## The Choices (II)

- Regression (answers in  $\mathbb{R}$ )
- Classification (answers are categories)

# The Tools

**There are many.**

It's easy to waste time

# Techniques (I)

- Linear (and non-linear) regression
- Logistic regression
- SVM

Under the hood, it's almost always a **cost function** and **gradient descent**.

## Techniques (II): Neural networks

- Feed forward
- Backpropagation
- Deep
- Feature learning

# Techniques (III)

- KMeans
- PCA
- Recommendation

# The Future

- Learning
- Algorithms about learning
- Algorithms about features!

# Resources

- Nantes Machine Learning Meetup
- Rennes Machine Learning Meetup (*nouveau !*)
- Community
- Conversation

questions?

