



# DATA

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Introduction to Data-X  
Applied Data Science with Venture Applications  
Data, Signals, & Systems

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# Welcome to Data-X

Introduction: Ikhlaq Sidhu

Berkeley SCET

## What is Data-X:

- Advanced project course for data science applications
- Concepts: theory, tools, project.

## Intention:

- Practical, Very Applied,
- Hacker's Guide to Data Science
- Systems not just algorithms

## What do Students Learn:

- Computer science tools for data science
- Relevant theory
- Most important: how to build real world data and AI applications

# Data-X Course Philosophy



Make the Tools



Use State-of-the-Art  
Open Source Tools



Architect  
the System



Sell, market, and  
pitch the product

Most CS / Math

**Data-X**

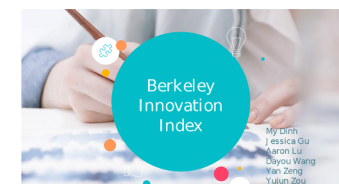
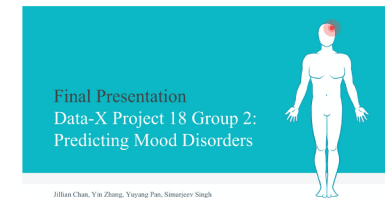
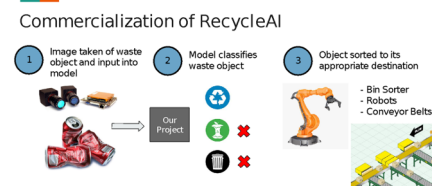
Business Topics

# Data-X Project Examples

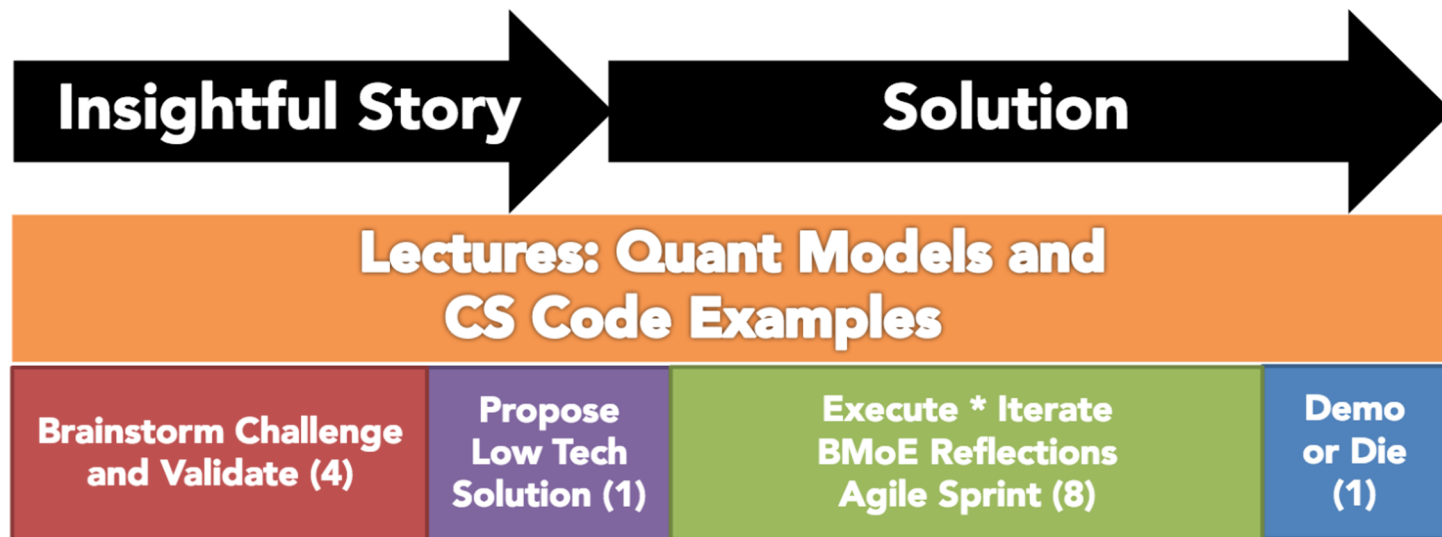
Prediction, Classification, Automation:

- Detection of fake news
- Prediction of long-term energy prices
- Automatic recycling through image recognition
- AI for crime detection, traffic guidance, medical diagnostics, etc.
- A version of Zillow that is recalculated with the effects of AirBnB income
- Signal processing and pattern analysis to improve earthquake warning systems
- Early Autism Detection
- Secure Health Records stored on a Blockchain

find many, many more at: [data-x.blog](http://data-x.blog)



# Course Overview



Open-ended, real-world project:

Typically 5 students, with available advisor network

# What is next?

Get your Notebook/development environment working

See the project module to get started with initial project ideas

Discuss the next steps in class session:

- Key dates
- Final project presentation dates



**End of Section**