

WELCOME TO:
MENTORS
AND
APPLIED DATA SCIENCE WITH
VENTURE APPLICATIONS
STUDENTS (IEOR 135/290)

Ikhlaq Sidhu, content author

Data X

Welcome to the Data-X Project Mixer
for Students and Mentors

Ikhlaq Sidhu

Founding Faculty Director, Sutardja Center for Entrepreneurship & Technology
IEOR Emerging Area Professor Award, UC Berkeley



What is happens at the Sutardja Center (SCET)?

- We are changing education
- Students change the world
- Our lab area enable new industries

Our Model Brings Bay Area Executives and Entrepreneurs into the Classroom

Michael Marks, [KKR](#), former CEO, [Flextronics](#)
Shomt Ghose, Venture Partner, [Onset Ventures](#)
Udi Manber, VP Engineering, [Google](#)
Marc Andreessen, Founder, [Netscape](#)
Larry Baer, COO, [San Francisco Giants](#)
Amine Haoui, CEO, [Sensys Networks](#)
Stacey Lawson, Founder In Part, Executive [Siebel](#)
Jim Davidson, Managing Director, [Silverlake Partners](#)
Donna Dubinsky, Former CEO, [Palm](#)
Matt Caspari, co-founder, [Aurora Biofuels](#)
Richard Gorman, SVP, [Siebel Systems](#)
Mike Olson, founder and CEO, [Cloudera](#)
Brodie Keast, EVP, [TiVo](#)
David Ladd, Managing Director, [Mayfield](#)
Jeff Miller, CEO, [Documentum](#)
Eva Miranda, SVP, [Sony Corporation](#)
Ravi Mohan, Managing Director, [Shasta Ventures](#)
Ted Hoff, [Inventor of the Microprocessor](#)
Nat Goldhaber, Managing Director, [Claremont Creek Ventures](#)
Peter Thiel, co-founder and CEO, [PayPal](#)
Victoria Hale, founder and CEO, [Medicines 360](#)
Steve Newcomb, founder, [Powerset \(part of Microsoft's BING\)](#)
Pehong Cheng, CEO, [Broadvision](#)



See more at scet.berkeley.edu

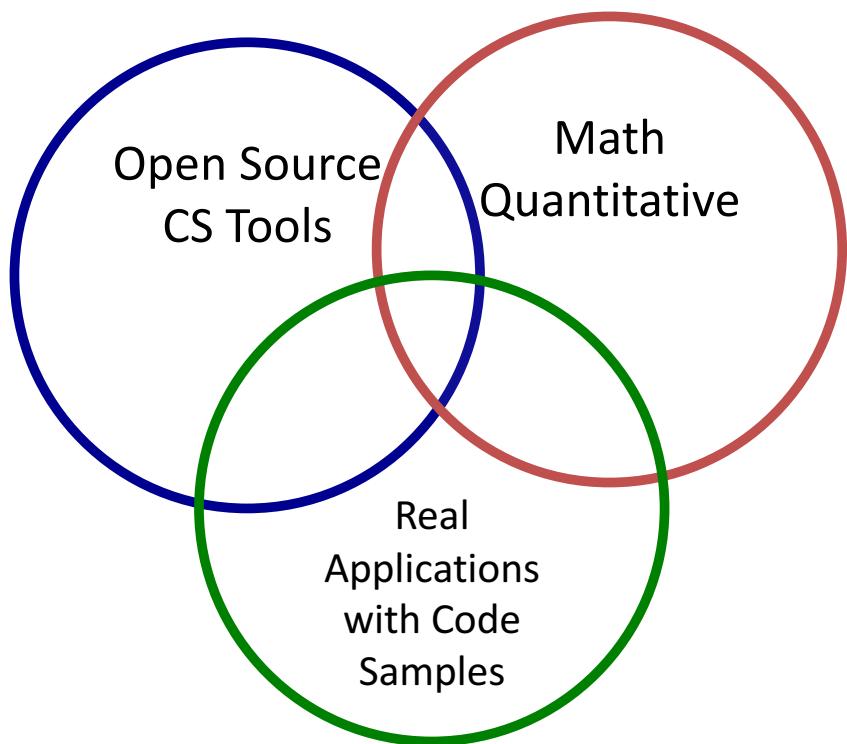
Ikhlaq Sidhu, content author

What Happens Today

- A Few Words About the Course
(without repeating too much from first class)
- Start thinking about projects
- Mentors and students meet each other (mixer)

What is Data-X: A Research and Curriculum Project

- Course Materials
- Applied Project
- Industry Perspective,
Social Applications,
Customer Driven



What is this class



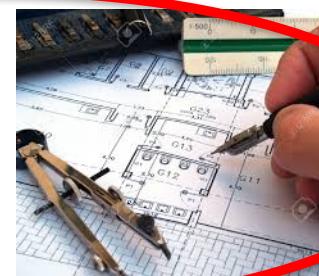
Make the Tools

Most CS



Use the Tools
(Optimally)

This Course



Architect the System



Why and how
you build

Sutardja Center

PROJECT CONCEPTS AND MENTOR INTRODUCTIONS

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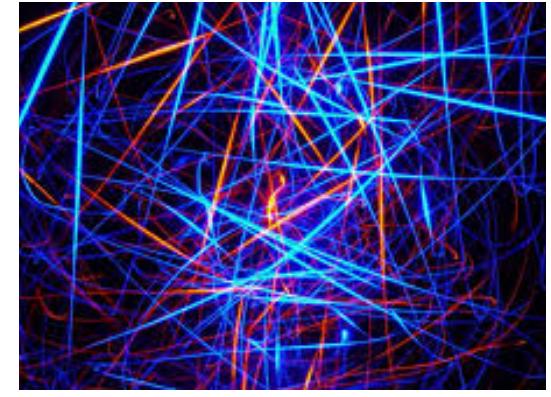
Project Types



Business Purpose



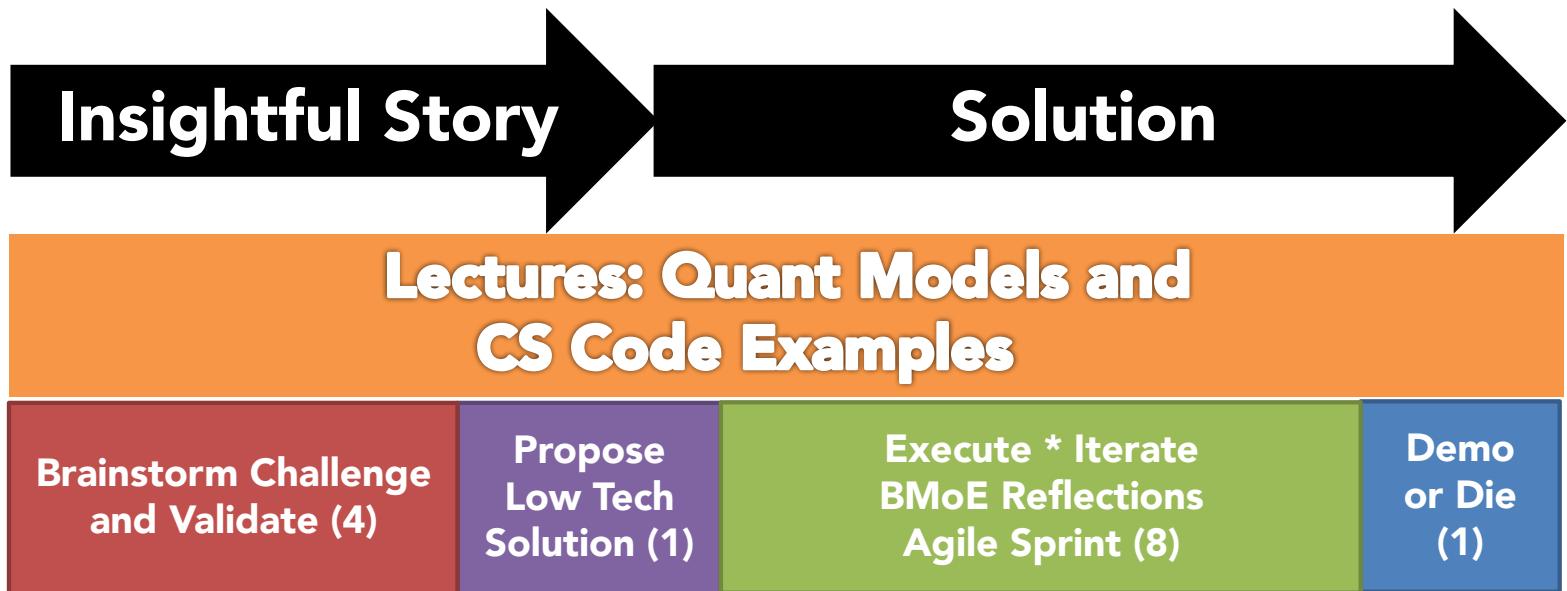
Social Impact



Its Just Cool

(or improve part of a data pipeline)

How the Data-X Course Works:



Team: typically 4-5 students, with available advisor network

Data-X Mentors – Who we Think Might Be Here

Yaron	Oren	CEO Maverick
Peter	Cnudde	VP Yahoo!
Shomit	Ghose	Partner OnSet Ventures
Antonio	Vitti	Founder, AI SaaS start-up CFO
Sana	Iqbal	GSI
Patrick	Chung	Partner X-Fund
Shail	Rajput	Western Digital, Director, Data Solutions
Jessika	Lora	CarForce
Meral	Shirazipour	Senior Researcher, Ericsson Research – Machine Intelligence, GF Technology & Emerging Business
Julien	Forgeat	Ericsson
Roberto	Zicari	Visiting Professor at UC Berkeley, Full Professor at the J.W. Goethe University in Frankfurt, Germany
Amir	Najian	Geospatial Data Scientist at RMS
Luigi	Rodrigues	Berkeley Venture Team
Aleks	Gollu	CEO/Founder
Paul	O'Leary	CTO, Kissmetrics
Ed	Fernandez	Early Stage & Startup VC

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Sample Project from the First Data-X Projects

- Detection of fake news
- Prediction of long-term energy prices to solve Wall Street problem
- Prediction applications stock market, sports betting, and more
- AI for crime detection, traffic guidance, medical diagnostics, etc.
- A version of Zillow that is recalculated with the effects of AirBnB income

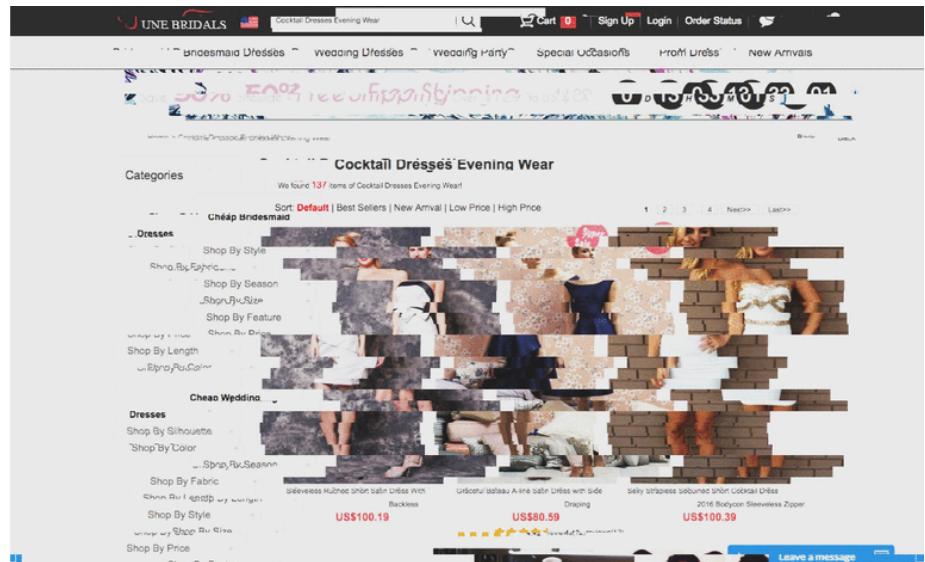
and many more...



Any prediction or classification project is reasonable for the class

Project Concept: Data Engineering via Noise Injection

- a code set and experiment to see what level of "fake and automated" requests on internet sites would have the effect of confusing the AI algorithms that track users preferences.
- Shomit Ghose
- Also a Collider Project



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Project Concept: AI Music Composition

- The goal for this project would be to predict future energy prices on a price per kilowatt hour basis for a specific gas fired electric power plant, preferably located in the USA but also open to other countries, assuming fixed competitive supply in its local market over the next 5 years.
- Introduced by Antonio Vitti, Chief Financial Officer and Senior Technology Executive formerly with Merchant Atlas, Inc. See post at data-x.blog



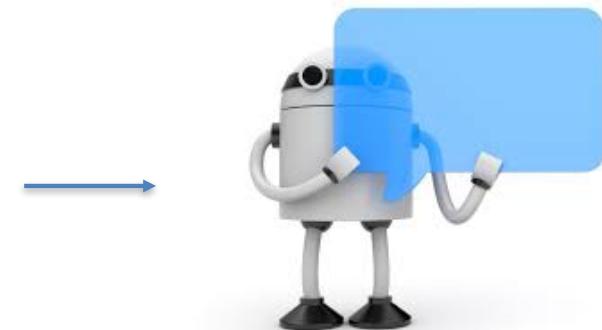
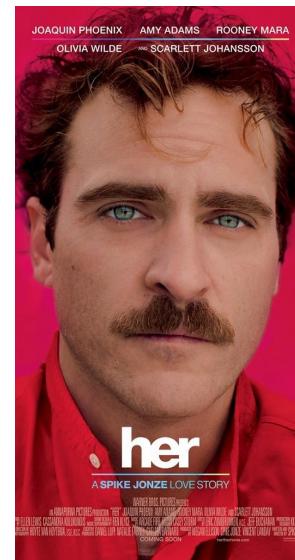
Project Concept: Delete Me

- A Venture Concept to check out from the Internet. Possible service to find your data on the Internet and remove it.
- Monika Nerger



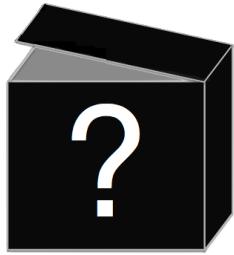
Project Concept: Chatbot with Personality

- How would you go about creating a chatbot that mimics your grandmother.
- Stephen Torres, SCET



Berkeley Innovation Index : Analytics on Data About Organizations

Company or
Organization



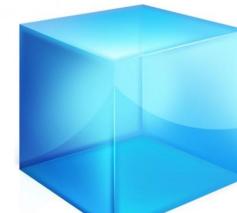
Understand
People & Functions



Data Analytics



X-Ray to Understand



Input vs
Output

Investment
R&D
Returns

We can now
see and
understand
at the
level of people

Project Concept: AI Music Composition

- The basic idea is to let AI aid in the writing of music by generating part of the sound by selecting the style of a particular composer.
- See post by Bodee Borjigin at bboerzhijin@berklee.edu (a student at the music school in Boston)



Can an AI application have Ethics?

- Ethics is complicated even for humans
- Many factors:
 - What is good for many vs few?
 - Choices for people we know
 - Value judgement on life is basis of healthcare policy
 - Does it depend on the environment
 - Does it depend on what others thing is valuable?
- Can machines ever make these decisions related to these issues?



And...

at the end of the semester,
you can continue the project as an independent study
or possibly build on it within another Sutardja Center Classes

Data-X Mentors

Yaron	Oren	CEO Maverick
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Sana	Iqbal	GSI
Patrick	Chung	Partner X-Fund
Shail	Rajput	Western Digital, Director, Data Solutions
Jessika	Lora	CarForce
Meral	Shirazipour	Senior Researcher, Ericsson Research – Machine Intelligence, GF Technology & Emerging Business
Julien	Forgeat	Ericsson
Roberto	Zicari	Visiting Professor at UC Berkeley, Full Professor at the J.W. Goethe University in Frankfurt, Germany
Amir	Najian	Geospatial Data Scientist at RMS
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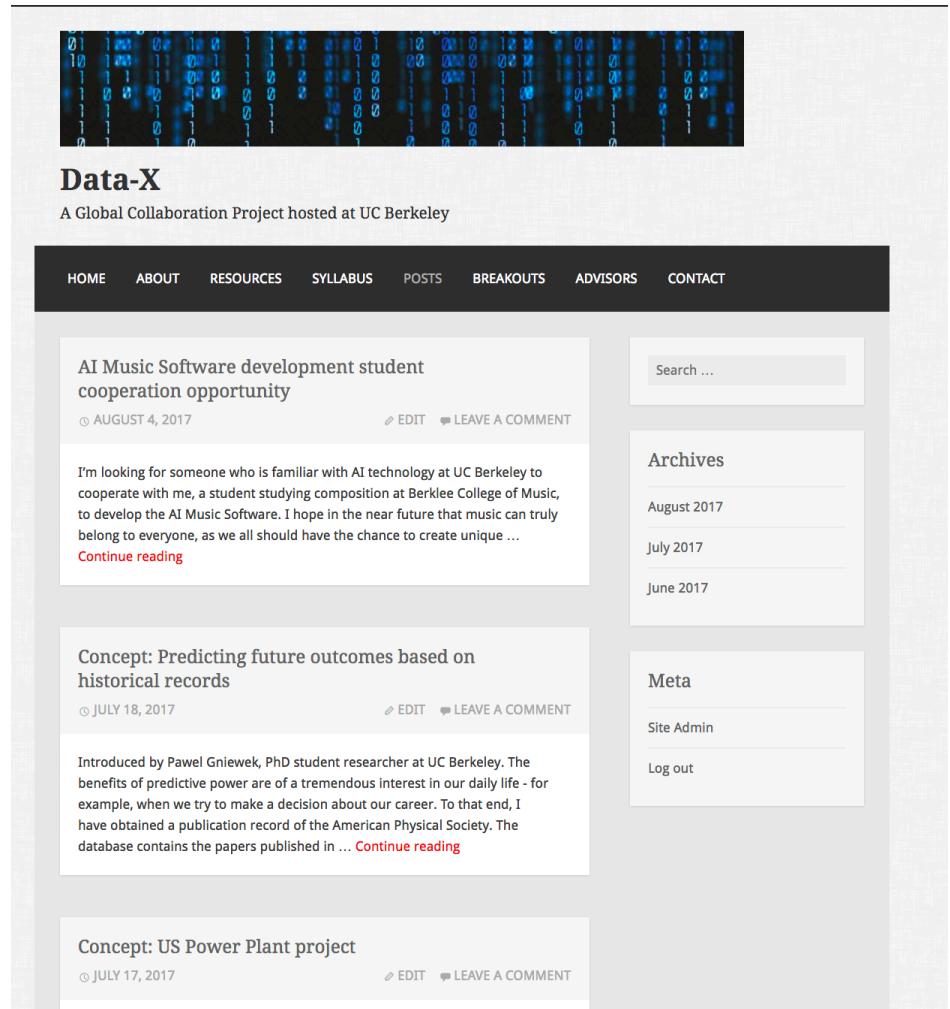
Data-X.blog

* Syllabus

* Project Concepts (Posts)

* Mentor Directory

* Github: Code Samples and Slides



The screenshot shows the homepage of Data-X.blog. At the top, there is a decorative header image consisting of a grid of binary code (0s and 1s) in blue and white. Below the header, the title "Data-X" is displayed in a large, bold, black font, followed by the subtitle "A Global Collaboration Project hosted at UC Berkeley" in a smaller, gray font.

The main navigation menu is located at the top of the page, featuring links for HOME, ABOUT, RESOURCES, SYLLABUS, POSTS, BREAKOUTS, ADVISORS, and CONTACT. Below the menu, there are three blog post cards:

- AI Music Software development student cooperation opportunity**
posted on AUGUST 4, 2017 | EDIT | LEAVE A COMMENT
I'm looking for someone who is familiar with AI technology at UC Berkeley to cooperate with me, a student studying composition at Berklee College of Music, to develop the AI Music Software. I hope in the near future that music can truly belong to everyone, as we all should have the chance to create unique ... [Continue reading](#)
- Concept: Predicting future outcomes based on historical records**
posted on JULY 18, 2017 | EDIT | LEAVE A COMMENT
Introduced by Paweł Gniewek, PhD student researcher at UC Berkeley. The benefits of predictive power are of a tremendous interest in our daily life - for example, when we try to make a decision about our career. To that end, I have obtained a publication record of the American Physical Society. The database contains the papers published in ... [Continue reading](#)
- Concept: US Power Plant project**
posted on JULY 17, 2017 | EDIT | LEAVE A COMMENT

On the right side of the page, there is a sidebar with the following sections:

- Search ...** (Search bar)
- Archives**
 - August 2017
 - July 2017
 - June 2017
- Meta**
 - Site Admin
 - Log out

Time to Mix

Meet with People who had interesting topics

Students: come to first class with some idea variations

Know who you might want to contact later in the semester

Contact:

Ikhlaq Sidhu

Faculty Director, Sutardja Center for Entrepreneurship & Technology
IEOR Emerging Area Professor, UC Berkeley

sidhu@berkeley.edu

scet.berkeley.edu