These are Revolutionary Times

Almost every interaction between ourselves and our world now takes place with a digital interface, creating unprecedented amounts of data that can teach us about our world in new ways.
However...
data scientists with the skills to leverage the unprecedented explosion of data from every corner of the globe are rare and in great demand from the business and finance sectors.

Meanwhile...
nonprofits and other mission-driven organizations have subject matter expertise to address large societal problems but often don’t have the ability or resources to harness this new opportunity.
DataKind brings organizations dedicated to solving the world’s biggest challenges together with expert pro bono data scientists to improve the quality of, access to and understanding of data in the social sector.
Jake Porway

Jake, Founder and Executive Director, is a machine learning and technology enthusiast who loves nothing more than seeing good values in data. He founded DataKind™ in the hopes of creating a world in which every social organization has access to data capacity to better serve humanity.

PopTech Social Innovation Fellow
The New York Times

Host, “Numbers Game,” on national Geographic

Columbia University
Former data scientist at the NYTimes R&D lab

Contributor to HBR
Currently Accepting Applications!

Chapters

volunteer-led, community hubs for data scientists and social organizations dedicated to doing good with data.

Chapters are located in Bangalore, Dublin, San Francisco, Singapore, Washington DC and the United Kingdom.

DataKind tackles humanity’s biggest problems through data science
DataKind by the Numbers

1,280
Active Volunteers

12,300
Volunteer Hours Contributed

11
DataCorps Projects Completed

$1.5M
Pro Bono Services Delivered

45
Organizations Helped

9
DataDives Hosted

DataKind tackles humanity’s biggest problems through data science
Projects

Helped the World Bank create proxy poverty measures through commodity price data scraping.

Developed a government data visualization interface for child well being advocates for the DC Action for Children.

Analyzed vaccine temperature data to preserve vaccines with Nexleaf.

Used satellite imagery to identify and target aid in rural Africa for Give Directly.
Core Programs

Data Dives
bring the data science community together with
mission-driven organizations to collaborate on data solutions
tough problems over the course of a weekend

Project Accelerators
bring the data science community together with
mission-driven organizations in brainstorming sessions to take
first steps towards a successful data science project

The DataCorps
a specialized team of pro bono data scientists who
work on 6-9 month in-depth projects for mission-driven
organizations including, governments, foundations, and nonprofits.
Press

“This marks a really big step forward,” Jake Porway, DataKind’s founder and executive director, said in an interview with VentureBeat. “Now let’s create these other hubs that can keep this data-for-good effort moving.”

In April 2014, DataKind put out a call for applications for data scientists who wanted to form local chapters. Almost 100 people from more than 60 cities responded … The result: a total of six chapters across three continents.

DataKind tackles humanity’s biggest problems through data science
Advisors

Lucy Bernholz
Stanford University

Drew Conway
Project Florida

Josh Greenberg
Alfred P. Sloan Foundation

Mark Hansen
Brown Institute for Media Innovation

Andrew Zolli
PopTech

Cheryl Heller
Design for Innovation at SVA

Matthew Klein
Blue Ridge Foundation

Jeff Stanger
Center for Digital Information

Mike Olson
Cloudera

HyeSook Chung
DC Action

Mayur Patel
Knight Foundation

DJ Patil
RelatelIQ

Kevin Starr
Mulago Foundation

Hilary Mason
bit.ly
DC Action for Children

DC KIDS COUNT
Tracking Critical Indicators of Child and Youth Well-Being
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Data Scientists in DC collaborated..

Sisi Wei
Emily Chow
Max Richman
Nick McClellan

+ other pro bono data scientists
Percentage of Children in Poverty

45%

Deanwood, Burrville, Grant Park, Lincoln Heights, Fairmont Heights

Population (total) 13,103
Population (under 18) 4,056
Children in Single Mother Families 73%
Children in poverty 45%

Demographic Breakdown

- Under 18: 95% black, 3% Hispanic, 2% other, 0% white
- Over 18: 25% black, 2% Hispanic, 1% white, 2% other

Sources
2008-2012 ACS
DATA TOOLS 2.0
WHERE RESOURCES AND WELL-BEING VARY IN DC
REDUCING TREE HAZARDS
WELCOME TO THE DATA KIND

NYC GOVERNMENT DATA DIVE
Improve Block Pruning to avoid tree hazards
Brian d'Alessandro came up with an approach.

32% Fewer emergencies on blocks pruned properly!
Case Studies

Created a machine learning algorithm that uses satellite images to identify villages in need

- Some of the poorest in rural Kenya and Uganda were identified and given money via mobile phone transfers—with no strings attached.

  Previously, manual data collection identified the neediest villages, but research showed a strong correlation between a village’s relative wealth and the roof material (iron versus thatch).

  DataKind volunteers developed an algorithm that uses satellite images to identify villages in need. The resulting write-up was selected as the Best Social Good Paper at KDD 2014.
Template matching.
Bangalore is facing a serious groundwater depletion problem

Only 19% of the city has a BWSSB connection***

Borewells are increasingly becoming the last option with an official estimate of 1,75,000 the actual number might stand thrice as much.

City plans to curtail new digging, all existing wells need a registration, ** new wells need a permission and there can't be more than a borewell per residency,**

- **Karnataka Groundwater Act of 2011**
- **Biome**

Is this a Groundwater problem or a Water management problem?

**Groundwater problem**
- What's the true groundwater picture of Bangalore?
- Does the new law as plain a policy enforcement really address the problem?
- How to assess some of the alternatives such as rain water harvesting?

**Water management problem**
- Assess the water problem
- Get a true “water footprint” of Bangalore
- Bring in the progression of the problem considering the population growth, industrialization and the ever growing city limits

**Its both**
- Manage water availability through better groundwater usage and policy

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**Karnataka Groundwater Act of 2011**
**Biome**
75% of the elderly in the city are facing abuse*
Majorly from within family

Abuse while dealing with building owners/ tenants is major too

Most of the intra familial abuse is due to property disputes

64% of the victims are aware of police helpline but only 12% ever approached

Men outnumbered women in the helpline callers

Economic and Emotional dependence on the abuser, changing ethos are the primary changes according to the victims

How can more data and analysis help?
Assess if the issues are specific to different sections of the elderly?
Analyze the abuse cases which go unreported, attribute reasons for not being reported
Are these reasons familial, social or are they more systemic/ procedural?

*HelpAge India Survey, June 2014
DataKindBLR
How we Engage
How We Work

We **form teams** to collect, analyze, and visualize data to enable better decision-making, leading to greater impact.

We **translate** and ensure everyone is working toward the same objective.

We recognize that working with data requires deep **sensitivity** and are open and transparent in everything we do.

We **bridge the gap** between disparate communities so they can go farther together than they could apart.

We **demystify data science** and big data so that it is accessible, fun, and useful for all.

We **create solutions** that can be shared across the sector so all can benefit.

DataKind tackles humanity’s biggest problems through data science.
Core Programs

Meet-Ups

Meet-Ups are regular get togethers organized by local chapters and community members interested in using data science for the benefit of humanity.

- Allow mission driven organizations to get consultation on their problems in an easy and fun environment.
- Share the latest findings and thinking around data science for social good with the community.

DataKind tackles humanity’s biggest problems through data science.
Core Programs

Project Accelerators

**bring the data science community together with**

- Jumpstart thinking about how a mission-driven organization can use data in brainstorming sessions to or question

**first steps towards a successful data science**

- Enable participants to ask questions, make suggestions, and, when possible, provide concrete help in thinking through data problems

- Allow mission-driven organizations to clarify their problem statements

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DataKind tackles humanity’s biggest problems through data science
Core Programs

DataDives

bring the data science community together with

- Forge connections between talented data scientists
  and visionary social impact leaders
- Collaborate on data solutions to
  tough problems over the course of a weekend
- Allow mission-driven organizations to experience
  the power of their data in just 48 hours

Promote learning about new skills and methods in
data science

DataKind tackles humanity’s biggest problems through data science
Core Programs

The DataCorps is a specialized team of pro bono data scientists who work on 6-9 month, in-depth projects for mission-driven organizations, including governments, foundations, and nonprofits.

- Connects data scientists, social organizations, and knowledge experts to tackle problems together.
- Helps mission-driven organizations become more effective and efficient through data science.
- Delivers analyses, visualizations, and findings to organizations so they can better fulfill their missions.
- Enhances data literacy in organizations.

DataKind tackles humanity’s biggest problems through data science.
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How to Contact Us

bangalore@datakind.org

https://www.facebook.com/DataKindBLR

http://www.meetup.com/DataKind-Bangalore/

@DataKindBLR