

Predicting *bitcoin*

by Dennis Xing

- ✓ Instant Peer to Peer Transactions
- ✓ Global Unstoppable Payments
- ✓ Zero or Low Processing Fees
- ✓ Free to Use

[WATCH VIDEO](#)

**The most important invention
in the history of the world
since the internet itself.**

[BUY BITCOIN](#)[GET A WALLET](#)

BUY BITCOINS

Buy Bitcoin in your local currency and start enjoying secure online transactions.

CREATE A WALLET

Create a wallet for personal or business use and start accepting Bitcoin in minutes.



What is Bitcoin ?

- Decentralized digital currency created in 2009
 - No single institution controls the bitcoin network.
- Not printed, mined
 - 21 million maximum
- Completely transparent
 - Details of every single transaction stored in a general ledger called Blockchain
- Transaction fees miniscule

Market Price (USD)

Source: blockchain.info



October 2014

Bayesian regression and Bitcoin

Devavrat Shah Kang Zhang

Laboratory for Information and Decision Systems

Department of EECS

Massachusetts Institute of Technology

devavrat@mit.edu, zhangkangj@gmail.com

My work

- Build on their work
- Add features-- Twitter Tweets

Tweets

```
> names(tweets)
```

[1] "id"	"verb"	"link"	"body"	"objecttype"	"postedtime"
[7] "favoritescount"	"twitter_filter_level"	"twitter_lang"	"retweetcount"	"actor_objecttype"	"actor_id"
[13] "actor_link"	"actor_displayname"	"actor_image"	"actor_summary"	"actor_postedtime"	"actor_links"
[19] "actor_location"	"actor_utcoffset"	"actor_preferredusername"	"actor_languages"	"actor_twillertimezone"	"actor_friendsco"
[25] "actor_followerscount"	"actor_listedcount"	"actor_statusescount"	"actor_verified"	"generator_displayname"	"generator_link"
[31] "provider_objecttype"	"provider_displayname"	"provider_link"	"inreplyto_link"	"geo"	"twitter_entitie"
[37] "object_objecttype"	"object_id"	"object_summary"	"object_postedtime"	"object_link"	"location_object"
[43] "location_displayname"	"location_link"	"location_geo"	"location_streetaddress"	"location_name"	"gnip"
[49] "the_geom"	"category_name"	"category_terms"	"cartodb_id"	"created_at"	"updated_at"

- ~18,000 twitter tweets
- 54 attributes
- Using actor_postedtime and body

Price Data

- Date, Time, Price (USD)

03/01/2009	18:15:05,0.0	27/11/2013	18:15:05,961.0
04/01/2009	18:15:05,0.0	28/11/2013	18:15:05,1009.0
05/01/2009	18:15:05,0.0	29/11/2013	18:15:05,1083.9
06/01/2009	18:15:05,0.0	30/11/2013	18:15:05,1119.96
07/01/2009	18:15:05,0.0	01/12/2013	18:15:05,970.0
08/01/2009	18:15:05,0.0	02/12/2013	18:15:05,992.27
09/01/2009	18:15:05,0.0	03/12/2013	18:15:05,1060.0
10/01/2009	18:15:05,0.0	04/12/2013	18:15:05,1151.0
		05/12/2013	18:15:05,1028.34
		06/12/2013	18:15:05,894.0
		07/12/2013	18:15:05,727.29
		08/12/2013	18:15:05,722.99
		09/12/2013	18:15:05,871.0
		10/12/2013	18:15:05,936.98
		11/12/2013	18:15:05,886.2
		12/12/2013	18:15:05,845.75

Preliminary Results

- Extracting the # of times Bitcoin appears in a tweet
 - Range from 1-5
- Currently working on adding it to my model
 - Getting Date to align

Further Work

- Do sentiment analysis on the tweets
- Classify tweets as Bots vs. Real people
- Add more features
 - Estimated Transaction Volume
 - Historical total Number of Bitcoins mined
 - USD trade volume from the top exchanges