# Xingzhong Xu

Seeking Data Science position

## Selected experiences

JANUARY 2014 – PRESENT

Individual Project

### Farseer

Develop a **Django** application to predict stocks' future performances through **machine learning**.
Historical daily prices as well as technique indicators (MACD, RSI, etc.) are used to construct the feature vectors for statistic regression.
Technology stack includes scikit-learn, Pandas, TA-lib, Django, and Linode.

NOVEMBER 2013 – PRESENT

Individual Project

### LEAPS Checker

Develop a **Python** application to monitor the abnormal open interests of financial instruments - Long-term Equity AnticiPation Securities (LEAPS). The daily captured data will be normalized, rank, and published online to provide trading signal.
Technology stack includes Pandas, jinja2 and AWS.

MARCH 2012 – NOVEMBER 2013

Tech co-founder

### yesgoody reward

Co-founded the firm yesgoody, which dedicated to improving the efficiencies of local merchants' daily reward program through cloud services.
Designed and developed **minimum viable product** - yesgoody reward and **RESTful API**, which manages and tracks the business rewards program.
Technology stack includes Node.js, Backbone.js and MongoDB.

SEPTEMBER 2010 – DECEMBER 2012

Lead Developer

### Semantic signal processing

Led a team of 8 members on SSP project.
Developed a software to model signal processing module through semantics and ontology.
Developed plug-ins for **GCC** and **Clang** to extract and analyze the semantics of abstract syntax tree (AST).

SEPTEMBER 2011 – DECEMBER 2013

Lead teaching assistant

### Intro. Programming C++

Award: Best teaching assistant in Dept. of ECE.

## Research topic

JANUARY 2013 – PRESENT

*Recursive Bayesian estimation based on stochastic context-free grammar*

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## Education

| 2011 – 2015[1] | **Electrical Engineering** DOCTOR OF PHILOSOPHY *Stevens Inst. of Tech., NJ* |
|---|---|
| 2009 – 2011 | **Electrical Engineering** MASTER OF ENGINEERING *Stevens Inst. of Tech., NJ* |
| 2005 – 2009 | **Tel-communication** BACHELOR OF SCIENCE *Beijing Jiaotong U., China* |

## Selected[2] Public projects

| 2014 | **MaxPain (sirxu.com/cp)** *Developer and maintainer* |
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| 2013 | **Farseer (farseer.sirxu.com)** *Developer and maintainer* |
| 2012 | **LEAPS Checker (options.sirxu.com)** *Developer and maintainer* |
| 2012 | **yesgoody (yesgoody.com)** *Developer and maintainer* |
| 2011 | **SSP (xingzhong.github.io/ssptool)** *Lead developer* |

## Tech skills

| DATA SCIENCE | Numpy, Pandas, Scipy, Scikit-learn, NLTK, NetworkX |
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| SYSTEM | Linux, AWS, Heroku, GAE, MySQL, MongoDB, Django, d3.js |
| LANGUAGE | Python, Javascript/Node.js, Matlab, C/C++, goLang, TeX |
| TRADING | Equity, Options and Futures |

## Publication

Xingzhong Xu and Hong Man: Activation Analysis on fMRI time series using SCFMs. WOCC 2014

Fangming He, Wei Wang, Xingzhong Xu, ...: A network coding method for channel signatures based key distribution. ICC 2012: 5036-5041

Guang Yang, Xingzhong Xu, ...: Optimum image fusion via sparse representation. WOCC 2011: 1-4

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[1] Anticipated on May 2015
[2] project list on Github github.com/xingzhong