# Peng Xu

*Curriculum Vitae*

## Education

2011-2015 **B.Eng. in Electronic Information Engineering**, *Beijing University of Posts and Telecommunications*, Beijing, *Major: 89.62/100, Overall: 87.06/100*.
**Highlighted Courses**: Probability Theory and Stochastic Process(98), Mathematical Analysis I (94), Fundamentamentals of Information Theory(95), Digital Circuit and Logic Design(99), Database Technologies and Applications(91), Discrete Mathematics(94)

## Research Experience

2014.4 - 2015.2 **Research Assistant, High Performance Computing Laboratory**, *Tsinghua University*, Beijing, *Supervised by Zhihu Du, focus on parallel computing via GPU hardware and distributed systems. More specifically, efficient partical-mesh spreading on GPUs*.

2014.9 - 2015.7 **Research Assistant, Knowledge Engineering Group**, *Tsinghua University*, Beijing, *Supervised by Jie Tang, focus on machine learning, data mining and information retrieval. More specifically, name disambiguation in large scale database and cross-domain knowledge linking*.

## Publications

2015 Xiangyu Guo, Xing Liu, **Peng Xu**, Zhihu Du, Edmond Chow, ***Efficient Particle-Mesh Spreading on GPUs***,In Proceedings of the Fifteenth International Conference On Computational Science (ICCS'15)

## Project Experience

2015 **Cross-Domain Knowledge Linking and Name Disambiguation**, Graduation Project
Due to challenges faced by the name disambiguation problem, limitations of the existing name disambiguation algorithms and the opportunities brought by the cross-domain knowledge linking, this project explores deeply into the possibilities of improving the results of name disambiguation via cross-domain knowledge linking.

2014 **Arnetminer II**, *python, scala, shell*, Research Project
Arnetminer is a website that offers comprehensive search and mining services for academic community. I am working on the second version of it, and responsible for designing and implementing API of the back-end server and handle the data in the databases, including experts recommendation, conference ranking, affiliations merge, linking patents and so forth.

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2014 **Crawler for Google Scholar**, *python*, Research Project
Develop a web crawler to crawl the whole co-author network with all their papers on Google Scholar through bfs. In order to avoid blockage of Google, use proxies via proper strategy. In addition, maintain the crawled data and match them to the corresponding databases.

2014 **Identify Experts in Baidu Baike**, *python*, Research Project
Develop a GUI to accept the input information of the experts entered or from the database. Use the given information to identify the experts in Baidu Baike, which is a website like Wikipedia in Chinese. And try various methods including SVM and Logisitic Regression to improve the accuracy and recall.

2014 **Efficient Particle-Mesh Spreading on GPUs**,*C, CUDA*,Research Project
Study various approaches for particle-mesh spreading on GPUs. A central concern is the use of atomic operations. We are also concerned with the case where spreading is performed multiple times using the same particle configuration, which opens the possiblity of preprocessing to accelerate the overall computation time. Experimental tests show which algorithm are best under different circumstances. Our work is accepted as full paper in proceedings of the Fifteenth International Conference On Computational Science (ICCS'15)

2013 **"Social Networks and Algorithms Design" Curriculum Design**,*python, Matlab*, Course Project
Based on data provided by Alibaba, use logistic regression and SVM to predict the behaviors of the consumers.

## MOOC Certificates

- Statements of Accomplishment **with Distinction**: Machine Learning (Stanford, $100\%$), Game Theory (Stanford, $92.9\%$), Mining Massive Datasets (Stanford, $93.5\%$), Introduction to Big Data with Apache Spark (UCB, $100\%$), Scalable Machine Learning (UCB, $97\%$)
- Statements of Accomplishment: Statistical Learning (Stanford, $82.4\%$)

## Skills and Qualifications

Languages C/C++, python, CUDA, Matlab(Octave), Shell, R, Scala
OS Microsoft Windows, Mac OS, Linux(CentOS)
Tools LaTeX, Git, Vim, MongoDB, Scrapy, Redis, RStudio, Flask

## Awards and Honors

- 2014 Enter the quarter-final in **Microsoft Programming of Beauty Contest**, Rank 134 of 988
- 2013 Bronze Medalist in **ACM-ICPC Hunan Invitational Programming Contest**
- 2013 Gold Medalist in **Programming Contest of BUPT**
- 2013-14 Third Grade Scholarship for Undergraduates
- 2012-13 Second Grade Scholarship for Undergraduates
- 2011-12 Third Grade Scholarship for Undergraduates

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