

**Chunheng Jiang** Amos Eaton 123, 110 8th St. Troy NY, 12180  
<http://www.horsehour.com/> (518)960-7682/ [jiangchunheng@gmail.com](mailto:jiangchunheng@gmail.com)

## Education

Ph.D. Computer Science, Rensselaer Polytechnic Institute, 2016 - now  
M.S. Applied Mathematics, Southwest Jiaotong University, 2011 - 2014  
B.S. Information & Computing Science, Tianjin University of Commerce, 2005 - 2009

## Research Interests

Machine Learning / Learning to Rank / Optimization / Information Retrieval (Extraction)

## Working Experience

*Spring - Summer 2017*: Multiround Winner Determination, RPI/**Research Assistant**

- Devise heuristic strategies (sampling, caching, pruning) to search all tied winners
- Train reinforcement learning models to simulate the voting procedure
- Improve the baseline DFS in terms of running time & number of nodes

*Spring 2017*: CSCI 4150 Introduction to Artificial Intelligence, RPI/**Teaching Assistant**

*Fall 2016*: CSCI 6100 Machine Learning from Data, RPI/**Teaching Assistant**

*Summer 2016*: Learning to Vote Fairly, RPI/**Research Assistant**

- Implement more than 20 voting rules (e.g. Borda count, Condorcet method, STV)
- Learn the fairness criteria in voting rules with machine learning approaches
- Apply data augmentation to enhance the learning performance

*July 2014 - Mar. 2016*: Chengdu Antusuoji Network Technology Co., Ltd./**Software Developer**

- Collect web information (commercial products, job positions)
- Build an information retrieval system based on SOLR

## Projects

*Fall 2016*: Matching Algorithm for OKCollege (now *CollegeAI*)

- Design a bilinear model to match students and colleges preferences
- Optimize a ranking-related loss function with SGD to train the model

*Summer 2013*: Automating Data Collection

- Crawl over 10,000 professors profiles from top Chinese universities
- Semi-automate the inefficient and expensive manual collection procedure
- Align the collected data and output with homogeneous content

*Summer 2012*: Meta Extraction from PDF Papers

- Crawl 5,000 research papers in PDF and related meta data from *arXiv*
- Recognize meta blocks (titles, authors et al) with handcrafted rules and ML techniques

## Publications

**Jiang, Chunheng**, Sujoy Sikdar, Jun Wang, Lirong Xia, and Zhibing Zhao. Practical Algorithms for Computing STV and Other Multi-Round Voting Rules. In *EXPLORE-2017: The 4th Workshop on Exploring Beyond the Worst Case in Computational Social Choice*, 2017

**Jiang, Chunheng** and Wenbin Lin. DEARank: A Data-envelopment-analysis-based Ranking Method. *Machine Learning*, 2015, 101: 415 – 435

Pei, Zhongyou, **Chunheng Jiang**, and Wenbin Lin. Random Walks on the Bipartite Graph for Personalized Recommendation. In *2013 International Conference on Computer Science and Artificial Intelligence*, Yuetong Lin and Gabriel Alungbe, Eds., Chengdu, China, 2013, 97 – 102

## Programming Skills

Python, Java, C/C++, Matlab, Mathematica, Lingo / Eclipse, PyCharm,  $\text{\LaTeX}$ , Markdown, vim, OS X