

# Ping Jin

10935 76 Ave • Edmonton, AB, Canada T6G 0J7  
(780) 802-5392 • pjin1@ualberta.ca  
[http://tkcrown.github.io/TK\\_blog](http://tkcrown.github.io/TK_blog)

---

## Education

- **University of Alberta, Canada** *M.Sc., Statistical Machine Learning Program*  
*GPA: 4.0/4.0*      *Supervisor: Prof. Russell Greiner*      *Aug. 2012 – Dec. 2014 (expected)*
  - **University of Hong Kong, Hong Kong** *Exchange Student. Computer Science*  
*GPA: 3.93/4.3*      *Jan. 2011 – June 2011*
  - **Harbin Institute of Technology, China** *B.Eng. Computer Science*  
*GPA: 88.5/100.0 (overall)*      *91.6/100.0 (Major)*      *Sept. 2008 – July 2012*
- 

## Core Technical Skills

**Languages:** C, C++, Python, L<sup>A</sup>T<sub>E</sub>X, MATLAB, R, and shell script

**Tools & Packages:** Git, Vim, Graphchi, Numpy/Scipy, and scikit-learn

**Specialities:** Machine learning, Feature selection, Sparse model, Optimization, and Survival analysis

---

## Project Experience

- **Learning Customer-Specific Reservation Price Distribution with Survival Prediction Techniques** *Aug. 2013 – present*  
*Tags: Thesis, Sparse model, Multitask logistic regression, Reservation price, Profit*
    - Reservation price (RP) is the maximum price a customer is willing to pay for one unit of product or service, which is essential in designing pricing strategy for maximum profit
    - Made the first effort to model RP in a stochastic manner, which resolved the existing conflicts in the concept of reservation price in marketing literature
    - Utilized multitask logistic regression, which was initially designed for survival prediction, to learn the customer-specific RP distribution from customers' past purchasing behaviour

**Publication:** P. Jin, R. Greiner, M. Wei, and G. Häubl . Learning Customer-Specific Reservation Price Distribution with Survival Prediction Techniques. **Submitted** to The Twenty-Ninth AAAI Conference (AAAI-15)
  - **Movie recommendation with latent social information** *2006 – Present*  
*Tags: Graphchi, Recommendation, LDA, Latent social regularizer, Collaborative filtering*
    - Proposed Latent Social Regularization Model (LSR), that utilizes Mixed Membership Stochastic Model to extract the latent social roles of users from social relationships, based on which social regularization terms are constructed to penalize the difference between the coefficients of users who share similar social roles
    - Implemented LSR with *Graphchi* and experimented on Douban dataset, which includes 129,490 users and 58,541 movies with 16,830,839 movie ratings and 1,692,952 friendship links
    - Decreased the RMSE by 1.13% by involving latent social roles information, which proved that latent social information is useful in recommendation
  - **Attention deficit hyperactivity disorder classification based on fMRI images** *Sept. 2012 - Dec. 2012*  
*Tags: Classification, fMRI, 3D-HOG feature, PCA, Dimension reduction, SVM*
    - Proposed and implemented 3D Histogram of Oriented Gradients feature descriptor for fMRI data, that captures the spatial relationships among voxels, the patterns of which are helpful in fMRI-based classification tasks
    - Applied kernel PCA to fMRI data, which reduced the number of features from about 191K to 4K to boost both the speed and performance
    - Achieved 62.39% on classification accuracy with SVM on ADHD-200 dataset, which beat the best known 59.45%

**Publication:** S. Ghiassian, R. Greiner, P. Jin, and M. Brown. Learning to Classify Psychiatric Disorders based on fMRI Images: Autism vs Healthy and ADHD vs Healthy. *3rd NIPS MLINI Workshop*, November 2013
- 

## Honors & Awards

- 2014 Computing Science GPA Award, University of Alberta *2014*
- CASC Scholarship, by China Aerospace Science and Technology Corporation (**Awarded to 1 of 174 in CS Dept**) *2011*
- Li & Fung Scholarship, by Li & Fung Limited, Hong Kong *2011*
- National First Prize of China Undergraduate Mathematical Contest in Modeling (**1.5% in 14,113 teams**) *2010*
- First Prize of ACM/ICPC Heilongjiang Provincial Programming Contest *2009*