

Mingkun Gao

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EDUCATION

University of Illinois at Urbana-Champaign, Department of Computer Science, Urbana, IL exp. 05/2020
Pursuing Ph.D.

- Computer Science
- Cumulative GPA: 3.83/4.00

University of Pennsylvania, School of Engineering and Applied Science, Philadelphia, PA 05/2015
Master of Science in Engineering

- Computer and Information Science
- Cumulative GPA: 3.90/4.00

Nanjing University, Department of Computer Science and Technology, Nanjing, China 06/2013
Bachelor of Science

- Computer Science and Technology
- Cumulative GPA: 86.4/100

RESEARCH EXPERIENCE

University of Illinois at Urbana-Champaign, Department of Computer Science 08/2015 – Present

- Conducted research on social opinion management based on human language technology (topic modeling and text mining) and user interface design.
- Conducted research on interactive medical healthcare information retrieval.

University of Pennsylvania, Department of Computer and Information Science 02/2014-08/2014
Research Assistant

- Conduct research on crowdsourcing, machine translation, and machine learning.
- Implemented a two-layer PageRank model to select the best translation for each source sentence from all the translation candidates.
- Proposed and implemented mechanisms to reduce costs of crowdsourcing translation.

Nanjing University, Department of Computer Science and Technology 07/2012-06/2013
Research Assistant

- Focused on ensemble pruning and related techniques in machine learning.
- Exploited opportunities to replace greedy methods with SEIP in ensemble pruning.

Nanjing University, Department of Computer Science and Technology 05/2011-05/2012
Research Assistant

- Designed and implemented an image information retrieval system on Android Platform.

PUBLICATIONS

Mingkun Gao, Hyo Jin Do, Wai-Tat Fu. *An Intelligent Interface for Organizing Online Opinions on Controversial Topics*. *Proceedings of IUI 2017*

Mingkun Gao. *A Framework of Health Information Retrieval for Aging Population*. *Companions of IUI 2017 Student Consortium*

Mingkun Gao. *Intelligent Interface for Organizing Online Social Opinions on Reddit*. *Companions of IUI 2016 Student Consortium*

Mingkun Gao, Wei Xu, Chris Callison-Burch. *Cost Optimization for Crowdsourcing Translation*. *Proceedings of NAACL-HLT 2015*

Rui Yan, **Mingkun Gao**, Ellie Pavlick, Chris Callison-Burch. *Are Two Heads Better than One? Crowdsourced Translation via a Two-Step Collaboration of Non-Professional Translators and Editors*. *Proceedings of ACL 2014*

TEACHING ASSISTANTSHIP

University of Illinois at Urbana-Champaign, Department of Computer Science

- Introduction to Data Mining (CS 412) Fall 2015
- Introduction to Artificial Intelligence (CS 440/ECE 448) Spring 2016
- User Interface Design (CS 465) Fall 2016
- User Interface Design (CS 465) Spring 2017
- Data Visualization (CS 498) Summer 2017
- User Interface Design (CS 465) Fall 2017

SKILLS

- **Text analyzing/processing skills: topic modeling, text mining and statistical machine translation.**
- **Mathematics:** calculus, discrete mathematics, mathematical logic, probability and mathematical statistics and linear algebra;
- **System level software:** Computer Organization, Network Systems and other programming languages;
- **Programming languages:** C, C++, Java, Python, MatLab, Verilog HDL, SQL, Javascript, XML, XQuery, assembly language;
- **Web development:** GWT, Node.js, Python Flask on Heroku.

THESES

Mingkun Gao. *Crowdsourcing Machine Translation.* Master's Thesis, University of Pennsylvania, May 2015

Mingkun Gao. *An Ensemble Pruning Approach Based on Evolutionary Optimization.* Undergraduate Thesis, Nanjing University, June 2013

Mingkun Gao. *Image Information Retrieval Based On Mobile Devices.* Feng Zhao. The 15th Forum of Science and Arts of Nanjing University, Nanjing, April 2012

COURSE PROJECT EXPERIENCE

- Group Leader, Artificial Intelligence Course Project** 05/2014
- Implemented a spam filter system based on Naive Bayes classifier and achieved an accuracy of 99.25%.
- Group Member, Pennterest Project** 12 /2013
- Implemented the Pennterest site, a “pinning” site like Pinterest, through Node.js.
 - Designed the schema and programmed user's homepage, searching function and recommendation function.
- Group Leader, Machine Learning Course Project** 12/2013
- Trained models to make predictions on ratings of Yelp's review records using ensemble methods.
- Individual Researcher, C programming language based Compiler Design** 03/2012-06/2012
- Designed and implemented a complier for a C-based language.
- Individual Researcher, Data Mining Course Project** 04/2012
- Created a friend-relationship recognition system based on time and location information of check-in records by data mining.
- Group Member, CyberForce Project** 01/2012
- Implemented the CyberForce site, which owns parts of functions of the IFTTT site, on Java Platform.
- Individual Researcher, Operating System Course Project** 03/2011-07/2011
- Designed and implemented an Event-Driven Micro-Kernel Operating System.

AWARDS

- Second Grade Award, People's Scholarship, 2010-2011
- Specialty Scholarship, for being the member of the basketball team in Computer Science and Technology Department, 2010
- Elite Program Scholarship, 2012
- Outstanding Student of Nanjing University, 2010
- Member of the excellent research project in the 2011 Nanjing University Undergraduate Innovation Program , 2011-2012
- Second Grade Award, the 15th Forum of Science and Arts of Nanjing University with the thesis titled Image Information Retrieval Based On Mobile Device, 2012