Yiru Chen

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EDUCATION

Peking University *September 2014 - Present*
BS Candidate, Major in Computer Science

- Total GPA: 3.71/4.00 (7/193) Major GPA: 3.84/4.00 Junior Year GPA: 3.87/4.00 (1/193)
- China National Scholarship (0.2% acceptance rate) *December 2015, 2017*

Selected Courses and Scores

Mathematical Analysis (A) 94	Algorithm Design and Analysis 93
Compiler Labs (Honor Track) 96	Set Theory and Graph Theory 92
Information Theory 91	Operating Systems Labs (Honor Track) 97
Database Systems (Honor Track) 93	Computer Network Practicum (Honor Track) 94.5

Peking University *September 2015 - Present*
BS Candidate, Major in Economics (Double Major)

Carnegie Mellon University *June 2017 - September 2017*
Visiting Intern in CASOS, Institute for Software Research

PUBLICATIONS AND ACADEMIC ACHIEVEMENT

X. Li, B. Cui, **Y. Chen**, W. Wu and C. Zhang
MLog: Towards Declarative In-Database Machine Learning [pdf]
VLDB Demonstration 2017

P. Kathiravelu, **Y. Chen**, A. Sharma, H. Galhardas and L. Veiga
On-Demand Service-Based Big Data Integration: Optimized for Research Collaboration [pdf]
VLDB Workshop on Data Management and Analytics for Medicine and Healthcare 2017

Sigmod Programming Contest 2017 Runner-Up
The task is to search documents and return strings from a given set. I designed a highly optimized two-phase concurrency control and lock-free data structure combined by Trie and Hash table with my teammates.[code]

RESEARCH EXPERIENCE

On-demand Service-Based Big Data Integration March 2016 - August 2016
Advior: Dr. Ashish Sharma ***Emory University***

- Based on my work of GSOC - Google Summer of Code 2016.
- Designed Óbidos as a generic service-based data integration system which integrates data on-demand, and shares study-specific datasets efficiently among the data consumers with zero redundancy.
- Talked at **DMAH Workshop @ VLDB2017**.

MLog: Declarative In-Database Machine Learning September 2016 - January 2017
Advisor: Prof. Bin Cui ***Peking University***

- Demonstrated MLog,that integrates machine learning into data management systems.
- Allowed the user to specify sophisticated machine learning models that are not currently supported by existing in-database analytics systems (e.g., MADlib and SciDB).
- I demonstrated it at **VLDB Demonstration 2017, Munich**.

Mining Group Opinion toward Topics from Twitter June 2017 - September 2017
Advisor: Prof. Kathleen M. Carley ***Carnegie Mellon University***

- Developed a mature procedure to discover the group opinion toward topics in Twitter data.
- Proposed a clustering algorithm taking users' sentiment into consideration and found important actors.
- Won the **Best Oral Presentation Award** in PKU Young Scientists Symposium on Informatics (top 1%).
- Actively moving forward and aiming for the incoming **ASONAM-18**.

A systematic study on how to accelerate topic model algorithms September 2017 - Present
Advisor: Prof. Bin Cui ***Peking University***

- Extension of "LDA*: A Robust and Large-scale Topic Modeling System".
- Trying to find a systematic way to apply the novel algorithm that works for LDA model to other topic models e.g. CTM, DTM, TOT and SLDA as well.
- Actively moving forward and aiming for the incoming **PAMI**.

WORKING EXPERIENCE

Research Assistant | Social Computing Group October 2017 - present
Mentor: Prof. Xing Xie ***Microsoft Research Asia, Beijing***

- Did a survey on the current state-of-the-art Recommender Systems.
- Built a personalized recommender system according to the bing's query history.
- Try to Generate user vectors which reflect a user's long-term and short-term interests.

Google Summer of Code 2016 April 2016 - August 2016

- Worked on an open source project: MediCurator - a near duplicate detection framework for heterogeneous medical data sources in constructing data warehouses. [document][code]

SELECTED PROJECTS

PaperHeaven Database Systems Course
Advisor: Prof. Jun Gao

- PaperHeaven is a website targeting at facilitating the idea exchanging among researchers! It functions like a discussion board where people can discuss papers and conference freely.

GalaxyGan on Tensorflow System Group in ETH Zurich
Advisor: Prof. Ce Zhang

- This project is the implementation of the paper "Generative Adversarial Networks recover features in astrophysicalimages of galaxies beyond the deconvolution limit" on tensorflow. It has been used for research by the black hole group in ETH. Also, it has become the official code offered by the author.[code]

JOS and JOS Transplantation on Arm Operating Systems Course
Advisor: Prof. Xiangqun Chen

- Implemented JOS - a tiny operating system and successfully transplant JOS from x86 to Arm achitecture.

OTHER SELECTED AWARDS AND HONORS

- National Scholarship 2015, 2017 (top 4/193)
- Founder Scholarship 2016 (top 10/193)
- HuaWei Scholarship 2017 (top 10/324)
- Peking University Merit Student
- Peking University Pacemaker to Merit Student (top 3/47)
- Peking University Outstanding Scientific Research Award
- Best Oral Presentation Award in PKU Young Scientists Symposium on Informatics (top 1%)
- Sigmod Programming Contest 2017 Runner Up
- 4^{th} in Annual ACM-ICPC Competition at Peking University
- 1st Prize Chinese Mathematical Olympiad in Provinces 2014, 2013 (Jiangsu Province, top 0.01%)
- Excellent Student Cadre in School of EECS, Peking University 2015
- Excellent Summer Practice Leader of Peking University

TECHNICAL STRENGTHS

Computer Languages	C&C++, Python, Java, SQL, HTML, Javascript, Tex, etc
Link	https://github.com/Ireneruru
Languages	English(TOEFL104: Reading 30, Listening 26, Speaking 23, Writing 25) Chinese(First language)