# Yongjoo Park

http://yongjoopark.com pyongjoo@umich.edu

**INTERESTS** 

My research interests lie in *big data processing* and its applications to *data mining*. In particular, I focus on building *interactive* big data processing systems by leveraging machine learning and statistical techniques. This initiative has been applied to various applications, such as real-time data analytics, data visualizations, searching in high-dimensional space, etc., for which real-time answers could bring significant benefits to data analysts and decision makers.

**EDUCATION** 

#### University of Michigan, Ann Arbor

2016

Ph.D. Candidate, Computer Science and Engineering *Thesis Advisors*: Michael Cafarella and Barzan Mozafari

#### University of Michigan, Ann Arbor

2013

MS in Computer Science and Engineering

CGPA: 3.955/4.0

#### Seoul National University (SNU), Korea

2009

BS in Electrical Engineering

Note: The flagship university in Korea

**AWARDS** 

### Graduate study (for PhD) scholarship

2013

**Kwanjeong** Educational Foundation

Note: The largest scholarship foundation in Korea

Graduate study (for Masters) scholarship

2011

2004

**Jeongsong** Cultural Foundation

Note: One of eight students awarded in the year

National Science Scholarship Korea Student Aid Foundation (by Korea government)

Note: Full tuition support

PUBLICATIONS, PRESENTATIONS

Yongjoo Park, Amhad Shahab Tajik, Michael Cafarella, Barzan Mozafari

Database Learning: Toward a Database System that Becomes Smarter Over Time In submission to International Conference on Very Large Data Bases (VLDB) 2017

Note: All three reviewers of this paper noted that "The paper will start a new line of re-

search and products."

Yongjoo Park, Michael Cafarella, Barzan Mozafari

Visualization-Aware Sampling for Very Large Databases

**IEEE International Conference on Data Engineering (ICDE) 2016**Note: A novel sampling method for one of the most frequently used data visualization

method: scatter plot.

Yongjoo Park, Amhad Shahab Tajik, Michael Cafarella, Barzan Mozafari Database Learning: Toward a Database System that Becomes Smarter Over Time

North East Database Day (NEDB) 2016, Oral, MIT

Note: A preliminary presentation for our VLDB paper above.

**Yongjoo Park**, Michael Cafarella, Barzan Mozafari Neighbor-Sensitive Hashing

International Conference on Very Large Data Bases (VLDB) 2016

Note: A significant improvement on an extremely well-known problem over the numerous works of the past decade.

Yongjoo Park, Michael Cafarella, Barzan Mozafari

Neighbor-Sensitive Hashing

3rd Workshop on Web-scale Vision and Social Media (VSM) at ICCV 2015

**Extended Abstract** 

Michael Anderson, Dolan Antenucci, Victor Bittorf, Matthew Burgess, Michael Cafarella, Arun Kumar, Feng Niu, **Yongjoo Park**, Christopher Ré, Ce Zhang (authors in alphabetic order)

Brainwash: A Data System for Feature Engineering

The biennial Conference on Innovative Data Systems Research (CIDR) 2013

### TEACHING EXPERIENCE

#### **EECS 485 Web Databases and Information Systems**

'12 Winter

- Graduate Student Instructor, University of Michigan, Ann Arbor
- Designed programming assignments (interactive web using JavaScript, and PageRank computation of Wikipedia pages using Hadoop)
- Taught 100 students in weekly discussion sections

## WORK EXPERIENCE

#### Software Engineer Internship, Amazon.com, Seattle

'14 Summer

 Working in a Web team, I developed a data center capacity prediction system.

#### Software Engineer (Full-time), Webcash, Seoul

2009 - 2011

- Internet-banking project with J.P. Morgan Hongkong
- Financial iPhone application developments

#### Research Assistant, System Electronics Lab Seoul National University, Seoul

2007

• Developed a power-efficient vehicle entertainment system that runs on embedded-processors (ARM)

#### **SERVICE**

External reviewers for VLDBJ'16, VLDB'16, VLDB'15, SIGMOD'16, ICDE'15, CIDR'15

Organizers of University of Michigan DB Group meetings ('16, '14) and MIDAS (Michigan Data Science) seminars ('14)