

# Junwen Yang

*Phd in Computer Science*

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## Research Interests

I am working with professor Shan Lu on performance and scalability problems of **data processing and data analytics systems**.

## Research Projects

- 2016–now **Hyperloop**, an ongoing research project that aims at detecting and solving performance problems for web applications built with ORM (Object-Relational Mapping) frameworks, mainly Ruby on Rails .
- A comprehensive study on existing open-source applications built with Ruby-on-Rails
  - A static-checker to identify and solve some of the common performance inefficiencies found in our study.
- 2017–now **PowerStation**, A RubyMine plugin to automatically identify performance-related issues.

## Education

- 2016–now **Ph.D in Computer Science**, University of Chicago, Chicago.
- 2011–2015 **BEng in Software Engineering**, Fudan University, Shanghai, 3.61/4.00.  
Rank 5/79
- 2013–2014 **Exchange in Computer Science**, National Tsinghua University, Taiwan, 4.21/4.3.

## Publication

- 2018 **Junwen Yang**, Cong Yan, Pranav Subramaniam, Shan Lu, Alvin Cheung, PowerStation: Automatically detecting and fixing inefficiencies of database-backed web applications in IDE , *26th Foundations of Software Engineering (FSE'18 Demonstration Track)*.
- 2018 **Junwen Yang**, Cong Yan, Pranav Subramaniam, Shan Lu, Alvin Cheung, How not to structure your database-backed web applications: a study of performance bugs in the wild, *40th International Conference on Software Engineering (ICSE)*.
- 2017 Cong Yan, **Junwen Yang**, Alvin Cheung, and Shan Lu, Understanding Performance Inefficiencies in Real-world Database-backed Applications, *26th Conference on Information and Knowledge Management (CIKM)*.
- Presentation at Singapore

## Outreach

- 2018 **ACM-W mentor program**, a program for mentoring undergraduate students.

- 2018 **Instructor in compileHer (FEMMES) Tech Capstone Teaching**, a workshop to lead middle school girls through CS and STEM concepts .
- 2017 **Attended Diversity at SOSP: The Ada Workshop**, a forum for female and minority students at the graduate and advanced undergraduate levels who have interests in computer systems research..

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## Award

- 2017 **CERES Outstanding Research Award 1st Year Graduate.**

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## Internship

- 2014–2015 **Student Consultant**, MSRA, Beijing.
- Work on better scheduling transient resources to run data-intensive jobs for distributed systems such as Hadoop
- Supervised by lead researcher Dr. Zhengping Qian.
- 2014.3– **Software Development in Test(SDET) intern**, EMC, Shanghai.
- 2014.9
- Automate testing frameworks of Mozy, a cloud platform.
  - Create incremental code coverage rate finder.
- Supervised by Aaron Zhang.

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## Teaching Assistance

- 2016 **Computer security**, University of Chicago, Ariel Feldman.
- 2014 **Discrete Mathematics**, Fudan University, Yiming Zhao.