

# Yaliang Wang

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## Education

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- M.S. Computer Science, Northwestern University. 3.78/4.00. 2014 - present
- B.E. Automation(Control), Zhejiang University. 3.67/4.00. 2009 - 2013

## Skills

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- Java, Scala, Python, Puppet, Aurora, Javascript, C++, MATLAB, PHP, Linux, Latex, Academic Writing.

## Experience

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**Software Engineer**, Interactive Query, Twitter Inc. October, 2016 - present

- Monitoring, analyzing, optimizing and developing Presto on top of the infrastructure at Twitter to power interactive queries on petabyte scale analytics data.
- Led and shepherded multiple feature supports in Presto for Twitter's unique demands.
- Optimizing the integration of Data Access Layer(DAL), a data discovery and consumption service at Twitter, with Presto.

**Technical Assistant**, Kellogg School of Management, Northwestern University. November, 2015 - July, 2016

- Built a software with flexible configuration for Evaluative Movement Assessment(EMA) experiments on PsychoPy.
- Designed and implemented structured database, RESTful data service API and front-end of a web platform for building and managing online EMA experiments.

## Projects

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**Lead**, LZO Thrift, a widely used data format at Twitter, read support in Presto. [Github](#), [Report](#). February, 2017 - August, 2017

- Led Thrift data read support in Presto. The implementation features splittable LZO support, a feature to improve the processing parallelism, and selective deserialization, a dynamic low-latency optimization to save computing cost for LZO Thrift data files in presto-hive.
- Conducted technical design, feature implementation and performance evaluation.

**Mentor**, Intern Project: Rosette Kafka connector in Presto. [Github](#). July, 2017 - August, 2017

- Adapted open-source presto-kafka to Rosette Kafka, a Twitter-customized Kafka compatible to Kafka 0.7.
- Featured time-stamp based segments filtering to save read bandwidth in Kafka cluster.

**Major Contributor**, Plan and conduct primary performance reports of Presto as a service. October, 2016 - December, 2016

- Benchmark the usability and performance of Presto service for typical use cases from internal customers.
- Discovered an issue exceeding ephemeral port limit and patched with pooled transport factory in Presto which immediately increased the query success rate from 80% to 95%.

**Member**, Datasets meta-data integration for Presto. December, 2016 - Present

- Re-factored the existing event-based synchronization service, which listens meta-data event and updates meta-info in the Hive metastore, to be more testable and more maintainable.
- Collaborating with Analytics Data Pipeline team to test and review their Hive Metastore API compatible service, which intend to replace native Hive metastore currently used as the meta-data source for Presto service.

**Researcher, Master Thesis**, Harnessing Crowdsourcing for Particle Detection in IV Bags. [Github](#) December, 2014 - July, 2016

- Built a crowd-sourcing mobile application to label the massive patches from captured image with effective data confidence calculation model.

**Researcher, Bachelor Thesis**, Balance Maintenance for Humanoid Robots Subjected to External Disturbance. [Publications](#), [Demo](#). December, 2012 - June, 2014

- First author of the paper published at ICRA 2014, top 1 international conference in robotics.

## Awards

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- #grow and #berigorous shout outs from colleagues, Twitter Inc., 2016-2017.
- Best Student Application Paper Award, IFAC ICONS 2013, 2013.
- Zhejiang University 2013 Session Excellent Bachelor Thesis Award, Zhejiang University, 2013.

## Publications

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- **Yaliang Wang**, Rong Xiong, Qiuguo Zhu, and Jian Chu, "Compliance Control for Standing Maintenance of Humanoid Robots under Unknown External Disturbances", *2014 IEEE International Conference on Robotics and Automation*, pp. 2297-2304 Hong Kong, China, May 31 - June 5, 2014.
- **Yaliang Wang**, Qiuguo Zhu, Rong Xiong, and Jian Chu, "Standing Balance Control for Position Control-Based Humanoid Robot", *3rd IFAC International Conference on Intelligent Control and Automation Science (IFAC ICONS 2013)*, pp.429-436, Chengdu, China, September 2-4, 2013.
- Chao Li, Rong Xiong, Qiuguo Zhu, Jun Wu, **Yaliang Wang**, Yiming Huang, "Push recovery for the standing under-actuated bipedal robot using the hip strategy", *Journal of Zhejiang University-SCIENCE*, 2014.