

# YANZHE CHEN

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## 🎓 EDUCATION

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**Institute of Parallel and Distributed Systems, Shanghai Jiao Tong University** 2014.9 - 2017.3

*M.S. in Software Engineering, Advisor: Prof. Binyu Zang*

**GPA:** 2.81 / 3.3, **Rank:** 2 / 96

**Shanghai Jiao Tong University** 2010.9 - 2014.6

*B.Eng. in Software Engineering*

**GPA:** 3.79 / 4.3, **Rank:** 8 / 99

## 💼 INTERNSHIP

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**Microsoft, China** 2016.7 - 2016.9

*Cloud & Enterprise Group SDE Intern*

Designed and implemented an Azure cost monitoring service to help reduce team's expenses.

- Built as a SPA using the MEAN stack, shipping with the Docker.
- Recommendation (4 in 14) from judges in **Microsoft Young Hackathon** semi-final.

Rework time adjustment policy in HyperV timesync module.

- Refine timesync request handling to avoid sudden change of guest time.
- Related patch accepted by the **FreeBSD kernel**.

## 👥 PROJECTS

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**DrTM**

2015 - 2016

*Distributed Transaction Processing* Research Project, C++

DrTM is a fast and general in-memory transaction system which provides high throughput and low latency.

DrTM leverages two hardware features called HTM and RDMA and designed a hardware-friendly protocol to boost the distributed transaction processing.

Related research papers were accepted by **SOSP'15** and **EuroSys'16** (*top conferences in system*).

DrTM is a *cooperated* project, my contributions are:

- Designed a lease-based shared lock using RDMA.
- Implemented a hybrid OCC protocol to preserve transaction generality.
- Designed an optimistic replication scheme to enable transaction recovery.

**PowerLyra**

2014 - 2015

*Distributed Graph Computation* Research Project, C++

Graph computation is widely used to reason about large-scale complex data in machine learning and data mining. PowerLyra is a performance extension to GraphLab, which is a open source graph computation framework.

PowerLyra discusses two ways of graph partition: Vertex-Cut and Edge-Cut and analyses their merits and demerits. It shows a hybrid partition to reduce redundant message and improves the performance dramatically.

Won the **Best Paper Award** from **EuroSys'15**.

PowerLyra is a *cooperated* project, my contributions are:

- Analysed the replication factor for existing partitioning strategies.
- Implemented a hybrid partitioning strategy which leverages both locality and parallelism.

**GENE-MAP**

2013 - 2014

*Map Generalization* Contest Project, C++

Map generalization is one of the core technologies for online map service. GENE-MAP provides an efficient generalization algorithm to make a trade off between precision and speed.

GENE-MAP exploits *iteration* and *greedy* strategy to ensure a good balance between precision and speed.

Won the **3rd Place Prize** from 2014 ACM GISCUP Competition

GENE-MAP is a *personal* project, my contributions are:

- Designed and implemented an iterative and greedy algorithm for map generalization.
- Parallelized the algorithm using the OpenMP library.

## PUBLICATIONS

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**Fast and General Distributed Transactions using RDMA and HTM** **EuroSys** 2016

[Yanzhe Chen](#), Xinda Wei, Jiaxin Shi, Rong Chen and Haibo Chen.

 

**Fast In-memory Transaction Processing using RDMA and HTM** **SOSP** 2015

Xingda Wei, Jiaxin Shi, [Yanzhe Chen](#), Rong Chen, Haibo Chen.

 

**PowerLyra: Differentiated Graph Computation and Partitioning on Skewed Graphs** **EuroSys** 2015

Rong Chen, Jiaxin Shi, [Yanzhe Chen](#), Haibo Chen.

 

**Greedy Map Generalization by Iterative Point Removal** **SIGSPATIAL** 2014

[Yanzhe Chen](#), Yin Wang, Rong Chen, Haibo Chen and Binyu Zang.

 

## HONORS AND AWARDS

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ACM EuroSys Best Paper Award 2015

First-class Academic Scholarship for M.S., Shanghai Jiao Tong University 2014

ACM SIGSPATIAL GISCUP 3<sup>rd</sup> Place 2014

Outstanding College Graduate of Shanghai Jiao Tong University 2014

XinDong Scholarship (second-class) of Shanghai Jiao Tong University 2013

Sun Hung Kai Properties Scholarship 2012

ShenYin and WanGuo Special Scholarship of Shanghai Jiao Tong University 2011

## TEACHING ASSISTANT

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Computer System Design and Implementation 2016

Distributed Systems 2015

Introduction to Programming 2013

## SKILLS

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- **Programming Languages:** Familiar with C++; Some experience with JavaScript, Bash, Java.
- **Systems and Tools:** Unix (4+ years); Familiar with Git, Vim.
- **English:** CET-6 561; Gave conference talk twice (Dallas and London).