Haoyu Li

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EDUCATION

Jun 2020 (Expected)	**Shanghai Jiao Tong University**, Shanghai, China M.E. in Software Engineering, advisor: Prof. Haibo Chen Gpa: 3.9 / 4.0
Jun 2018	**Shanghai Jiao Tong University**, Shanghai, China B.E. in Software Engineering, advisor: Prof. Binyu Zang Gpa: 3.6 / 4.3
Jun 2013	**The First High School of Changsha**, Hunan, China

RESEARCH INTERESTS

Performance and Reliability of Computer Systems

Managed Runtime, Programming Languages, Operating Systems, and Computer Architecture

RESEARCH EXPERIENCES

@Institute of Parallel and Distributed Systems, SJTU, Advisor: Prof. Haibo Chen

Current	A Non-volatile Memory Friendly Garbage Collector
Nov 2017 - Jul 2018	ScissorGC: Scalable and Efficient Compaction for Java Full Garbage Collection Solve the region dependency problem and improve object copying efficiency in ParOld GC with up to 5.6X GC throughput improvement and 61.8% application speedup. Open-sourced at here, and submitted to OpenJDK at here
Oct 2016 - Oct 2017	Espresso: Brewing Java For More Non-Volatility with Non-volatile Memory Provide a general persistent heap design to manage persistent data in Java runtime, and a safe persistence programming model to persist application data with 256X speedup at best.
Sep 2016 - Dec 2016	Tiger Programming Language Compiler Implement a compiler, including both front and back end, according to *Modern Compiler Implementation in C*.
Jun 2016 - Sep 2016	JOS: An Exo Kenel Lab Implement booting, memory management, user environments, and preemptive multitasking of an exokernel-like system.

@Department of System Software, Alibaba Group, Advisor: Sanhong Li

Sep 2018 - Jul 2019	Platinum: A CPU-Efficient Concurrent Garbage Collector for Tail-Reduction of Interactive Services Utilize idle cores to run mutator threads during Parallel Scavenge GC, and leverage MPK and RTM to protect mutators' concentrated working sets from being collected. Implement a concurrent collector with low CPU consumption.

Publications

[**VEE'19**] Li H, Wu M, Zang B, Chen H. ScissorGC: Scalable and Efficient Compaction for Java Full Garbage Collection. Proceedings of the Fifteenth ACM SIGPLAN/SIGOPS International Conference on Virtual Execution Environments.

[**APSys'18**] Li H, Wu M, Chen H. Analysis and Optimizations of Java Full Garbage Collection. Proceedings of the Ninth Asia-Pacific Workshop on Systems.
Best Paper Runner Up

[**ASPLOS'18**] Wu M, Zhao Z, Li H, et al. Espresso: Brewing Java For More Non-Volatility with Non-volatile Memory. Proceedings of the Twenty-Third International Conference on Architectural Support for Programming Languages and Operating Systems.

Scholarships and Honors

Oct	2019	National Scholarship
Jun	2018	Shanghai Jiao Tong University Excellent Graduate
Nov	2017	Xin Dong Network Inc. Scholarship
Nov	2017	Academic Progress Scholarship
Nov	2017, 2016	National Encouragement Scholarship
Nov	2017, 2016, 2015	Shanghai Jiao Tong University Academic Excellent Scholarship

Teaching

Spring	2019	Teaching Assistant of Operating System
Fall	2018	Teaching Assistant of Principle and Technology of Compiler

Social Experiences

Nov 2017	Volunteer in Symposium on Operating Systems Principles
Jun 2016 - Sep 2017	Vice-minister of Library Students' Administration Committee
Jun 2014 - Jun 2015	Cofounder and President of Martial Arts Association in SJTU