Fuyao Zhao

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Education

Carnegie Mellon University, Pittsburgh, PA 15213

Aug., 2010 - May., 2012

School of Computer Science,

M.S., areas: Programming Language & Information System ¹

Central South University, Changsha, Hunan China

Sept., 2006 - Jun., 8

School of Information Science and Engineering,

B.S., Computer Science. (Distinguished Graduate Award)

Employment

SDE, Google.com

Not start yet.

Sept., 2012 -

Teaching Assistant, Carnegie Mellon University

Sept., 2011 - Dec. 2011

Grading, designed and implemented distributed query engine for assignment.

SDE Intern, Amazon.com

Jun., 2011 - Aug., 2011

Designed and implemented the prototype system on AWS for monitoring and analyzing the phone call status & recordings to ensure customer service quality.

Coaching Assistant, Central South University

Aug., 2009 - Jun., 2010

Assisted training teams of CSU for ACM Collegiate Programming Contest. Shared responsibility for lectures and worked as organizer in programming contest.

Academic Experience Programming Language & Software Engineering

Sept., 2010 - present

Carnegie Mellon University, Advisor: Prof. Jonathan Aldrich

Working on Plaid Programming Language design, compiler optimization, type checking and new language features support provide better data access pattern.

Text Algorithm Design & Analysis

Nov., 2008 - Jun., 2010

Central South University, Advisor: Prof. Langsheng Yu

Studied text algorithms and proposed two novel algorithms on string matching and compression, which earned the Excellent Bachelor's Thesis in my department.

Course **Projects** Parallel Lempel-Ziv: Implemented and compared the Parallel LZ77 and LZW algorithms for data compression.

Mobile OS Evaluation: Implemented the syscall trace tool for iOS. Collected, compared and analyzed the traces from both iOS and Android.

Automatic Parallelization: Implemented "Decoupled Software Pipelining" in LLVM with POSIX to automatic multithreading programs.

Bug Localization: Applied graph mining & machine learning in dynamic program analysis, predict bug locations according to the change of classification accuracy.

Awards & **Scholarships**

- Excellent Bachelor's Thesis, Central South University, 2010
- Gold Medal, 34th ACM International Collegiate Programming Contest Asia, 2009
- China National Scholarship, China Ministry of Education, 2009
- Honorable Mention, The Mathematical Contest in Modeling (MCM), 2009

Skills

- Programming: Java, C/C++, SML, C#, Javascript, perl, Matlab, SMV
- Distributed & Parallel Programming: MapReduce, AWS, Cuda, OpenMPI, MPI
- Data processing: PostgreSQL, MySQL, SQL Server
- Excellent in algorithm design & data structure, good at machine learning
- Good at teamwork, strong communication and presentation skill

¹Course works: **PL/Compiler:** Principles of Programming Language, Programming Language Semantics, Model Checking, Optimizing Compiler. System: Advanced Operating and Distributed System, Parallel Computer Architecture and Programmming, Very Large Information System. Others: Machine Learning, Software Engineering