

Chi Zhang

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Objective

Software Engineer / Research Scientist

Education

Ph.D.

in Computer Science, University of Pittsburgh

Expected 2020

B.E.

in Computer Science, Xidian University, China

Jun 2014

Experiences

Facebook, Menlo Park, CA

PyTorch Glow Runtime Team, Software Engineer PhD Intern

May-Aug 2018

Google, Mountain View, CA

Google Payments Infrastructure, Software Engineer PhD Intern

May-Aug 2017

Bosch Research and Technology Center, Pittsburgh, PA

Private and Security Team, Research Engineer Intern

May-Aug 2016

Significant Project

Transactional Row-Column Store DBMS

- Designed and implemented a transactional DBMS that supports aggregated query and concurrent execution of transactions.
- Employed Strict 2-Phase Locking to ensure serializability. Adopted an undo recovery/no-redo strategy to achieve atomicity. Utilized wait-for graph to meet dead lock detection.

Mini-Google: Document Indexing and Querying

- Effectuated a simple Map-Reduce framework based on RPC to index and search large documents.
- Delivered a replicated and reliable client/server model, consisting of: the client, the server (with indexing and querying masters), the helpers (for mapping and reducing), and the name-server (for name resolution)

Live Code Update Strategies for Energy Harvesting Devices

- Explore efficient live update strategies for code images of IoT devices in energy harvesting environment
- Proposed a novel strategy based on in-place code updating and code trampoline. It effectively eliminates system down time and minimizes resource demands for updates.

Technical Strengths

Languages C++/C, Java, Python

Systems Dedicated to Unix/Linux developing environment; Skilled with GDB debugging

Tools CUDA, OpenCL, Caffe, PyTorch, Guice, Protocol Buffer

Others Solid algorithms skills, Computer Systems concepts (e.g. I/O system, compiler, organization)