Chi Zhang

Resume

Personal Inforamtion

Name	Chi Zhang
Phone	757-338-7196
Email	chzh.xdp@gmail.com
ShortBio	Active researcher and software engineer. Experienced and interested in the areas of **computer architecture, compiler, deep learning and AI.**

Skills

Languages	Java, Python, C++/C, SQL
Tools	CUDA, PyTorch, Linux/Unix, GDB debugging
CS Knowledge	Solid algorithms skills, Computer Systems concepts (e.g. I/O system, compiler, distributed system)

Work Experience

Google   ***Software Engineer (L4)***, Sunnyvale, CA.
PAYMENTS INVOICING, 2020.09-2023.01
Support the Invoicing of Google [Core Java, SQL, ProtoBuf]

- Participated in the APIs or services design/implementation/testing for the purpose of generating/maintaining/modifying the invoices/documents/transactions for all Google customers.
  - Delivered the API for fetching/rendering of customer documents.
  - Delivered the API to show the customer transactions based on the given interval, which supports sorting, filtering and pagination and also scales to very large-volume customers.
  - Emphasized the product excellence and took responsibility to help improve the quality of the team code base.
- The services and APIs we are building are targeted to be planet-scale, real time and stable. The APIs are deployed on the Google's robust payment platform which ensures the performance and scalability.

Software Engineer PhD Intern, Mountain View, CA.
GOOGLE PAYMENT INFRASTRUCTURE, 2017.05-08
Support the Invoicing of Google

- Participated in the specific project to help migrate the BigTable/MapReduce based backend service to use a new Google F1 based system.

Meta   *Software Engineer PhD Intern*, Menlo Park, CA.

PYTORCH GLOW RUNTIME TEAM, 2018.06-08

Quantization Support for GPU backend of Glow [C++, OpenCL]

- Add quantization support for more than 20 GPU operators of Glow.
- Enable the weights and data of the neural network to be stored in quantized format (INT8) other than 32bits (INT32). **Reduced the entire memory usage by 75%.**

Software Engineer PhD Intern, Menlo Park, CA.

PYTORCH GLOW RUNTIME TEAM, 2019.05-07

(Glow: A machine learning compiler and execution engine for hardware accelerators. The compiler is designed to allow state of the art compiler optimizations and code generation of neural network graphs.)

Support for debugging in Glow [C++, Python]

- Add functionality to track and dump all changes that happened in the graph compilation and optimization phases of Glow.
- Implemented log-based debugging tools to
  - reconstruct the node graph at any certain fixed compilation phase of Glow.
  - filter and infer all nodes transformations related to one given node.
  - collect basic statistics of nodes at any phase or bewtween any pair of compilation phases.

Bosch Research & Technology Center   *Research Engineer Intern*, Pittsburgh, PA.

PRIVACY AND SECURITY TEAM, 2016.05-07

Cloud-based encrypted search engine [Java, Apache Lucene]

- Designed and implemented an encrypted search engine infrastructure that is based on SSE (Searchable Symmetric Encryption).
- Achieve scalability for this infrastructure by utilizing Apacha Lucene/Solr and deployment on AWS.

Education

Ph.D. in Computer Science, *University of Pittsburgh*, 2014-2022.
Passed dissertation proposal at 2019, received diploma at 2022

B.E. in Computer Science, *Xidian University*, China, 2010-2014.
Graduate with Honor(3%)

Awards

National Lizhi Scholarship, Ministry of Education, China
National Scholarship, Ministry of Education, China