YuAng Chen

| yuangchen@link.cuhk.edu.cn | https://github.com/yuang-chen

Education

The Chinese University of Hong Kong, Shenzhen *2020.01 – 2022.7*

• PhD in Computer Science China

• High-Performance Computing for SpMV and Graph Algorithms, Computer Architecture; modern C++ programming

EIT Digital Master School *2015.08 – 2018.08*

Entry - Eindhoven University of Technology Netherlands

Exit - Technical University of Berlin Germany

• Dual Master degrees with full EIT Scholarship

• Core Modules: Multicore System, Embedded Visual Control, Embedded Computing Architecture

RWTH Aachen University *2014.10 – 2015.06*

• Exchange undergraduate in Communication Engineering with CSC Scholarship Germany

Huazhong University of Science and Technology *2011.09 – 2015.06*

• Bachelor of Engineering in Electronic Science and Technology China

Publication

YuAng Chen and Yeh-Ching Chung, "Workload Balancing via Graph Reordering on Multicore Systems," *IEEE Transaction on parallel and Distributed Systems* (TPDS), Vol. 33, No. 5, 2022, pp. 1231-1245. CCF-A

YuAng Chen and Yeh-Ching Chung, "HiPa: Hierarchical Partitioning for Fast Page Rank on Multicore Systems," *Proceedings of IEEE International conference on Parallel Processing* (ICPP), Article No. 24, 2021, pp. 1-10. CCF-B

YuAng Chen and Yeh-Ching Chung, "POSTER: Corder: Cache-Aware Reordering For Optimizing Graph Analytics," *Proceedings of ACM International conference on Principles and Practice of Parallel Programming* (PPoPP), 2021, pp.472-473. CCF-A

YuAng Chen and Yeh-Ching Chung, "A Dynamic Caching Strategy for Shared-Memory Graph Analytics", to appear in *IEEE Transactions on Parallel and Distributed Systems* (TPDS). CCF-A

Ongoing:

YuAng Chen and Yeh-Ching Chung, "Co-Design of Mixed Matrix Format and Processing Engine for Efficient SpMV on Graphs"

YuAng Chen and Yeh-Ching Chung, " Locality Extraction & Blocking for Graph Adjacency Matrix Multiplications"

Project

GNN in C++ *2020.02 – 2020.04*

• Implement a 2-layer GCN in pure C++ independent of third-party libraries

• Components include Adam Optimizer, ReLU, CrossEntropy; fulfill the mechanisms of forward- and backward-propagation

• Designed for multicore systems; parallelized via OpenMP

Deep GNN *2020.03 – 2020.06*

• Investigate the architecture of deep GNN with application on text classification

• Build an 8-layer GCN with residual connection and k-NN dilation

Academic Experience

Fraunhofer FOKUS *2017.04 – 2018.06*

Research Intern, Germany`s Smart Cities Project Germany

• Worked on the simulation of a SICCT card terminal and its belonging IC cards

• Implemented the TLS secured communication channel between the simulation and the client device

• Deployed the Jenkins CI automated testing for the simulation software

Strength

• Solid skills in Linux, C/C++(20), Java, Python; Experience with VHDL, Verilog