Hang Yang

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Personal Summary

- Over five years of experience in developing operator acceleration libraries for heterogeneous platforms (CPU/GPU/DSP/NI including DNN, BLAS, FFT, etc. Deep involvement in 0-1 chip software and hardware development.
- Two years of team leadership experience, managing teams of around 10 people.
- Strong software engineering skills (project implementation), excellent learning ability, committed to excellence and quality.

Education

National Taiwan University |Telecom Institute| *Master's Degree*　　　　　　　　　　2014.09—2017.01

Designed WIFI 802.11ax protocol, published two papers in IEEE Access journal and Globalcom.

[1] **Yang, Hang**, D.-J. Deng, and K.-C. Chen, "On energy saving in ieee 802.11 ax," *IEEE Access*, vol. 6, pp. 47 546–47 556, 2018.

[2] **Yang, Hang**, D.-J. Deng, and K.-C. Chen, "Performance analysis of ieee 802.11 ax ul ofdma-based random access mechanism," in *GLOBECOM 2017-2017 IEEE Global Communications Conference*, IEEE, 2017, pp. 1–6.

Chongqing University |Communication Engineering| *Bachelor's Degree*　　　　　　　2010.09—2014.06

Top 5% of the program, outstanding graduate, multiple scholarship recipient.

Technical Skills

- **Technology Stack**: Daily use of C++, Python, CUDA; familiar with software and hardware co-optimization, zebu.
- **Workflow**: CMake, Linux, Bash, Vim, Git, GitHub, JIRA, Docker, Markdown, Jenkins, English working environment.

Work Experience/6 Years

Biren Technology/2.5 Years |*Software Engineer/Team Leader*　　　　　　　　　　　2021.1—Present

- Developed AI/HPC acceleration libraries from scratch based on GPGPU platform.
- Led a team of around 10 people.

Hikvision/3.5 Years |*Software Engineer*　　　　　　　　　　　　　　　　　　　2017.7—2020.12

- Developed high-performance convolutional neural network (CNN) library for heterogeneous platforms, evaluated chip performance.
- End-to-end responsibility for algorithm-side projects, deeply analyzed business requirements, built efficient application solutions, accelerated intelligent algorithm implementation.

Project Experience

BLAS Library in C++ |*Development and Maintenance from Scratch*　　　　　　　2021.11—Present

- Lead project initiation, design, system construction, development, testing, CI/CD deployment, documentation, task management through JIRA.
- Implemented operator registration framework, logging system, core operator development.
- Performance optimization of core operators (GEMM/GEMV/reduce).

DNN Testing Framework |*Custom Operator/Graph Test Cases Based on YAML*　　　2022.3—Present

- Designed operator/graph test cases based on YAML
- Designed tester based on gtest, supporting tests at various granularities for operators/graphs, multiple backend testing.
- Aligned with industry-leading precision comparison schemes.
- Integrated performance testing tools to automatically generate performance test reports.