



Peking University

XU Pengcheng *Team leader*

Junior, School of EECS

Major: Computer Science

Skills: SysOps, Embedded, Networking

Focus: HPL, HPCG, IO500



CHENG Yihua

- Senior, Yuanpei College
- **Major:** Computer Science
- **Skills:** Networking, HPC, GPU Programming
- **Focus:** VPIC



WU Yifan

- Senior, Yuanpei College
- **Major:** Computer Science
- **Skills:** Scientific Computing, Cryptography
- **Focus:** Reproducibility task



FAN Zejia

- Junior, School of EECS
- **Major:** Computer Science
- **Skills:** Deep Learning
- **Focus:** Reproducibility task



MAI Jing

- Junior, School of EECS
- **Major:** Computer Science
- **Skills:** FPGA, ACM/ICPC, Algorithms
- **Focus:** VPIC



YAN Yuxuan

- Junior, School of physics
- **Major:** High Energy Physics
- **Skills:** Numerical Methods
- **Focus:** SST



LEI Yuntong

- Junior, School of EECS
- **Major:** Computer Science
- **Skills:** Deep Learning
- **Focus:** SST



Prof. LIANG Yun *Advisor*

- **Research Interest:** High Performance Computing, Compilation and Architecture.
- **Publication** in Top-tier conferences: HPCA, ISCA, MICRO, FPGA, DAC, etc.



FU Zhenxin *Advisor*

- **Research Interest:** Natural Language Processing.
- **Publication** in Top-tier conferences: AAI, IJCAI, CIKM, EMNLP, etc.



- *Passionate members* from *different departments*

e.g. EECS, Yuanpei College, School of Physics

- *Different focus*

e.g. Parallel Computing, System Administration, Power Management and Computer Networking.

Teaching each other

- *Regular technical sessions*

Team members pick topics on HPC and share their knowledge

Responsibility for applications

- *Making clear everyone's focus*

Each member has a main focus application

Responsible for background, building, bottlenecks and optimization methods

Growth through practice

- *Hands-on* for HPC topics
e.g. program compiling, profiling, MPI and CUDA

Passing it on

- *GitHub organization*
For hosting code, discussion slides, documents from previous competition and other related files for future members

Working with sponsors

- *Extensive support*

From our sponsors Inspur, Sitonholy and NVIDIA

Be creative

- *Well-designed hardware* and *software*

Dare to use new technology

Profiling

- *Finding hotspots and bottlenecks*
 - Intel VTune and NVIDIA Visual Profiler

Compiling

- *Target-specific compiler options*
 - Generate optimal code for our architecture

Optimization

- *Rewrite badly-written code*



Thank you