

Kangping Dong

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📄 www.github.com/wgtdkp

Education

- 2015–Present **MS in Network and Service computing, Supervisor: Linpeng Huang, Computer Science, Shanghai Jiao Tong University**, expected 2018.
- 2011–2015 **BA in Micro Electronic, Electronic Engineering, Huazhong University of Science and Technology**.

Work Experience

- 2018 **Alibaba, Distributed Dataase**.

As a member of Alibaba's database team that supports business from *Taobao* to *Tmall*, I was engaged in distributed consensus protocol and RPC framework. My first work was to implement our RPC protocol atop of RDMA network. We reduced response time with kernel-bypassing and copy-free technologies. The second, I participated in improving *X-Paxos* (our implementation of the *paxos* protocol) to support data partition, so that different partition goes to different paxos group but not a single group on a node, which will result in better performance.

Internship

- 2017 **Google, NBU (Next Billion Users) team**.

My work is related to mobile development, but the detail is highly confidential.

- 2015 **Morgan Stanley, Technology & Data Department**.

Designed and implemented a simulator of *CNAPS2* system to help testing. The Simulator receives and parses message packages and sends receipt to pretend to be a *CNAPS2* system.

- 2014 **DJI, Navigation Department**.

Developed a coding style checking tool. I focused in parsing the C source file to generate a syntax tree and loading style specifications on it. The Style specifications is configurable and it is quite easy to add more specifications with little work.

Projects

- 2017 **Apollonia, Physics Engine**, Independent Project.

Apollonia is a light impulse-based 2D physics engine, which is created to develop independent physics game. The polygon collison solver and simple joints are completed now. I am still working on it.

- 2016 **Wgtcc, Compiler**, Independent Project.

Wgtcc is a small yet standard C11 compiler. It implemented almost full C11 language standard including some advanced features: Static Assertion, Unicode String, Compound Literal, etc. A preprocessor is also included.

- 2016 **Julia, Web Server, Network Programming**, Independent Project.

Julia is a small and high performance http server and reverse proxy. Making use of non-blocking I/O and *sendfile*, Julia achieves 56K QPS of 1KiB static page on commodity machine.

- 2016–2017 **NVDS, Storage**, Research Project.

NVDS is a system that using nonvolatile memory in distributed storage system to provide fast replication and low latency. By synchronizing modifications on master to slaves with RDMA, it can replicate 256bytes in less than 5us latency.

Awards & Performance

- 2015 **GPA Rank: 5%.**
- 2014 **First Prize in Electronic Design Contest in Provinces.**
- 2013 **Annual Best Students of HUST.**
- 2013 **National Scholarship.**
- 2012 **National Encouragement Scholarship.**

Skills

Languages **C \geq C++ > Python \geq Lisp.**

GitHub **www.github.com/wgtdkp.**