**姜恒 男**

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**求职意向**

研发工程师

**教育背景**

2012.9-2015.6 工学硕士 中国科学院计算技术研究所 计算机系统结构（免试推荐）

2008.9-2012.6 工学学士 中国矿业大学（北京） 计算机科学与技术（**Top3%**，优秀毕业生）

**实习经历**

**2014.7 - 至今 UnitedStack** (云计算公司) **存储组 实习研发工程师**

* 项目介绍：基于OpenStack框架，用**开源**的分布式存储Ceph作为云产品的后端统一存储
* 个人职责：基础数据及存储平台开发
* 工作内容：
  + - * 为Ceph开发易用的性能测试框架， 测试对象存储、块存储顺序或随机读写特定大小块的性能
      * 为Ceph的rbd bench-write模块增加统计Lattency的分布、均值、方差的功能（参考fio）
      * 发现并修复多处Ceph的Bug（修复被Merged）

**2011.10-2012.1 百度公司 推荐与个性化部 实习研发工程师**

* 项目介绍：为百度贴吧用户提供个性化推荐，在贴吧右侧边栏和底部分别推荐相关明星、新闻及图片等
* 个人职责：运用MapReduce程序进行海量访问日志的处理和分析，为推荐业务提供精确的数据支持；协助分析推荐实验的结果，改进推荐算法
* 工作内容：
  + - * 贴吧用户行为特征提取与分析：基于贴吧log，处理得到用户的页面停留时间、PV、Tag、Session信息等多个维度的指标
      * 基于组合特征对用户进行分类，分类后进行对比推荐实验
* 结果：分类后进行的推荐，能有效提升点击率40%

**项目经历**

**2013.2-2014.5 面向服务的未来网络体系架构SOFIA的研究与实现 国家973项目**

* 项目介绍：属于研究型项目，SOFIA是一种面向服务的新型网络体系架构，是为了解决当前TCP/IP架构的可扩展性、移动性差等问题而设计的，目前只在实验床上部署
* 个人职责：设计实现面向服务的可靠传输机制及传输优化算法、为应用层提供Socket接口
* 工作内容：
  + - * 基于超时重传实现两种面向服务的可靠传输机制：sender-driven（适合交互式连接）和receiver-driven（适合内容获取）
      * 利用具有反馈机制的快速重传算法提升流中单个包丢失时的传输性能
      * 运用Protocol Buffer在接口层和协议栈传递消息，运用单例模式维护全局Socket状态信息
* 结果：有优化的传输比无优化的传输性能提升20%

**奖励情况**

* 国家励志奖学金（**前5%**，2010、2011）、校一等奖学金（**前5%**，2010、2011）
* **编程之美复赛**（**前5%**，2014）、**百度之星复赛**（**前5%**，2014）
* 校数学建模一等奖（2011）、校物理竞赛二等奖（2009）、校高数竞赛二等奖(2009)

**个人技能**

* 熟悉常见数据结构和算法以及计算机体系结构
* 熟悉云计算、熟悉分布式存储，参与开源社区**openstack**和**ceph**
* 熟悉Linux系统及c/c++开发，熟悉TCP/IP及网络编程
* 熟悉MapReduce、hadoop和hive
* 熟练使用shell脚本和Python（日志自动化处理及推送工具）

**Heng Jiang male**

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**Education**

2012.9-2015.6 Institute Of Computing Technology, Chinese Academy of Sciences **M.S.** Computer System Architecture

2008.9-2012.6 China University of Mining&Technology, Beijing **B.S**.(Top%2, Outstanding Graduate) Computer Science

**Intership**

**2014.7 – present UnitedStack** (Cloud Company) **storage department Software Development Engineer**

* Introduction: Using Ceph, the **open source**, distributed storage as the unified storage for the backend of cloud platform, which is based on Open Stacks
* Responsibilities: Storage Platform Development
* Contributions：
  + - * Develop the BenchMark Architecture to test the performance of random/seq read/wirte with object/block storage
      * Add new function for bench-write of Ceph to get the distribution, min/max, variance of Latency (fio referenced)
      * Fix bugs of Ceph, get **merged**

**2011.10-2012.1 Baidu recommendation & personalization department Software Development Engineer**

* Introduction：provide personal recommendation for user of Baidu TieBa, recommend some related stars, news, images according to user interest.
* Responsibilities：process and analyze the big log data with MapReduce, provide the data support for recommendationbusiness
* Contributions：
  + - * Feature extraction and analysis of user behavior：get the time that user stay on the page, page view, Tag, Session and some other target based on log file
      * Classify users based on a combination of features, make Comparative tests on different groups
* Results: recommendations after Classification improve 40%

**Projects**

**2013.2-2014.5 Service Oriented Future Internet Architecture(SOFIA) National 973 Project**

* Introduction: It’s a research project, aimed to design and implement a total new stack, deployed only on the test bed
* Responsibilities: design and implement service oriented reliable transmission mechanisms (rtm) and transmission optimization, provide socket interface for application layer
* Contributions：
  + - * Provide two rtm based on retransmission: sender-driven and receiver-drivens
      * Using Fast retransmission which has feedback mechanis, improve performance when single packet loses in a flow
      * Using Google Protocol Buffer deliver message between protocol stack and socket layer, using Singleton to maintain global socket state information
* Results: Transmission with optimization improves 20%

**Awards and Honors**

* National motivational scholarships(**top 5%**, 2010, 2011), The First Prize Scholarship (top 5**%**, 2010, 2011)
* **Beauty of Programming**(**top 5%**, 2014), **Programming match of Baidu Star**(**top 5%**, 2014)
* Second Prize of Physical Competition, Second Prize of Higher Mathematics Competition (School-hosted)

**Skills**

* Familiar with basic data structures and algorithoms
* Familiar with concepts and principles of Cloud Computing/Distributed storage, contribute to open source projects **OpenStack** and **Ceph**
* Good with C/C++(3 years experience), familiar with Python and shell scripts
* Familiar with Linux development environment and TCP/IP stack
* Familiar with MapReduce/hadoop and hive