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# Kailiang(Bright) Chen

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#### **OBJECTIVE**

To obtain a software developer intern utilizing my skills in Mobile, Cloud and Backend.

# **EDUCATION**

Carnegie Mellon University, Pittsburgh-Silicon Valley

| Aug.2014 - Dec.2015 (Expected)

M.S. of Information Technology, Mobility, Information Network Institute

> Completed Course: 15213 Computer System/ 15619 Cloud Computing/ 15640 Distributed System

14740 Computer Networks/ 14741 Information Security

> Ongoing Course: 14836 iOS Mobile Development / 96822 Mobile Ecosystem

95706 Objected Oriented Analysis & Design / 11601 Coding Boot-Camp

Fudan University, Shanghai, China

| Sept.2005 - Jul.2008

M.S. of Electronic Engineering, Image Processing & Artificial Intelligence Lab

Image/Video Processing System based on Neural Network and DWT/DCT (C++/Matlab)

Fudan University, Shanghai, China

| Sept.2001 - Jul.2005

B.S. of Electronic Engineering, Excellent Graduate Student(Top 10%)

## **SKILLS**

Programming: Java/C++(Proficient) C/Matlab/Ruby (Intermediate) HTML/CSS/Javascript/Python/Objective-C(Beginner) Knowledge: Android/iOS/Amazon AWS/Hadoop/OOA&D/Web App/MySQL/PostgreSQL/HTTP TCP/UDP

#### ACADEMIC PROJECT

> Twitter Analytic RESTful Web Service (Java/Python/MySQL/HBase + AWS) - CMU, 15619 Cloud Computing

♦ Designed and implemented large-volume data(1TB) processing web service using WebApp + ETL(JSON) + MySQL/ HBase, which provides high-throughput demanding queries, using Amazon Web Service(EC2, S3, ELB, ASG, etc,.)

➤ Map-Reduce Engine

(Java)

- CMU, 15640 Distributed System

Designed and implemented a simplified **Map-Reduce** and **HDFS** Framework which is similar to **Hadoop**, comprised of JobTracker, TaskTracker, Mapper/Reducer/Combiner and can process large volume data in a distributed environment

> RMI(Remote Invocation Method) Facility

(Java)

- CMU, 15640 Distributed System

Designed and implemented a facility similar to **Java RMI**, object method can be looked up and remotely invoked

➤ Parallelized Clustering Analysis using OpenMPI (Java)

- CMU, 15640 Distributed System

Parallelized clustering algorithm(K-means) using **OpenMPI** and compare the performance with sequential version.

> MiniSQL Database Engine

(C++/C)

- CMU, 15615 Database Application

♦ A MiniSQL which supports creating table, **B+ tree index** creating, selecting from, insert, delete records queries library.

Cached Web Proxy

(C++/C)

- CMU, 15213 Computer System

Designed and implemented a multithread Web Proxy based on HTTP 1.0 with LRU Cache.

## **WORK EXPERIENCE**

➤ Mobile Software Engineer, Sony Japan(HQ)

| *Nov.2008 – June.2014* 

Design and develop **application/framework/platform** software on **Android/Linux** hybrid system for next-generation cameras, providing photography application download service and connection with Smart Phone, Tablet, Smart Watch using Wifi, NFC

## **WORK PROJECT**

PlayMemories(Android) Smart Camera Apps

- Sony Japan

| Nov.2011 - June.2014

https://www.playmemoriescameraapps.com/portal/ (Official Website) https://www.youtube.com/watch?v=3Il4EBcilO0 (CM)

Responsibility: (Java - JNI - C++/C)

♦ Designed and developed **application** and **framework**, on which more than 20 apps(SmartRemote, etc,.) released.

- ♦ Designed and developed platform and new features APIs on Android/Linux system
- ♦ Japanese Good Design Awards 2013/ Sony Imaging Group Challenging Awards 2012(Top 3)
- Android/Linux Common Software Platform

- Sony Japan

| Nov.2010 – Oct.2011

Responsibility: (C++/C)

- ⋄ Designed and developed large-scale software platform for next-generation digital camera/camcorder using OOA/OOD, MVC, Design Pattern, FSM based on SDLC
- > Image/Video Compression System

- Sony Japan

| Nov.2008 - Oct.2010

Responsibility: (C++/C/Ruby)

- ♦ Researched, designed and developed image/video compression algorithm for next-generation digital cameras using open sources JM, FFMpeg and based on standards HEVC/AVC/MPEG2/JPEG2000/JPEG
- ♦ One patent on image compression algorithm utilized in Sony Digital Cameras