

4337 Renaissance Dr, Apt#116  
San Jose, CA 95134  
Tel: 412-916-6539

# Kailiang(Bright) Chen

[kailianc@andrew.cmu.edu](mailto:kailianc@andrew.cmu.edu)

Personal Website : [www.kailiangchen.me](http://www.kailiangchen.me)

## OBJECTIVE

To obtain a full time software developer position 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* GPA: 3.4 / 4.0

- **Completed Course:** 15619 Cloud Computing/ 15640 Distributed System /15213 Intro to Computer System  
14837 Java Smart Phone(Android) Development /  
14836 Mobile Game Development(iOS) / 14839 Mobile Ecosystem /  
95706 Objected Oriented Analysis & Design / 14740 Computer Networks

**Fudan University**, Shanghai, China | Sept.2005 – Jul.2008  
*M.S. of Electronic Engineering, Image Processing & Artificial Intelligence Lab*

- Digital Image 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++/C/Matlab/Ruby/Objective-C/HTML/CSS/Javascript**

Knowledge: **Amazon AWS/Hadoop/MySQL&PostgreSQL/Android/iOS/OOA&D/Web Application/HTTP&TCP/UDP**

## ACADEMIC PROJECT

- **PicKick - a Cloud-based Mobile Photo/Video App** (Android/PHP/MySQL) - **CMU, 14837 Java Smart Phone**
  - ◇ Designed and implemented an Android app to store, arrange and processing 2D/3D photos/videos using NDK
- **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
- **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 Intro to Computer System**
  - ◇ Designed and implemented a **multithread** Web Proxy based on **HTTP 1.0** with **LRU Cache**.

## WORK EXPERIENCE

- **Mobile Software Engineer Intern, NVIDIA(HQ), Mobile(Tegra) Software Department** | June.2015 – Aug.2015
  - ◇ Research and prototype 2D to 3D reconstruction algorithm based on **Structure from Motion**
  - ◇ Design and implement Android app for Shield tablet/game console using Android NDK and 3rd party library
- **Mobile Software Engineer, Sony Japan(HQ), Cloud Service Application Department** | Nov.2008 – June.2014
  - ◇ Design and develop **app/framework** software on **Android/Linux** hybrid system for next-generation cameras, providing photography application download service and connection with Smart Phone, Tablet, Smart Watch

## WORK PROJECT

- **PlayMemories(Android) Smart Camera Apps** - **Sony Japan** | Nov.2010 – June.2014  
<https://www.playmemoriescameraapps.com/portal/> (Official Website)  
<https://www.youtube.com/watch?v=3II4EBcilOO> (CM)  
Responsibility: (Java - JNI - C++/C)
  - ◇ Designed and developed **Android app** and **framework**, on which more than 20 apps(SmartRemote, etc.,) released
  - ◇ Designed and developed large-scale software platform using **OOA/OOD, MVC, Design Patterns**
  - ◇ *Japanese Good Design Awards 2013/ Sony Imaging Group Challenging Awards 2012(Top 3)*
- **Image/Video Compression System** - **Sony Japan** | Nov.2008 – Oct.2010  
Responsibility: (C++/C/Ruby)
  - ◇ Researched, designed and developed CODEC algorithm using **open sources** JM, FFMpeg and based on **MPEG/JPEG**
  - ◇ *One patent on image compression algorithm utilized in Sony Digital Cameras*