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# Kailiang(Bright) Chen

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## OBJECTIVE

To obtain a full time software developer position utilizing my skills in **Mobile, Cloud and Multimedia**.

## EDUCATION

**Carnegie Mellon University**, Pittsburgh-Silicon Valley **GPA 3.47/4.0** | Aug.2014 – Dec.2015 (Expected)

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

- **Courses:** 15619 Cloud Computing/ 15640 Distributed System /15213 Intro to Computer System  
14837 Java Smart Phone(Android) / 14836 Mobile Game Development(iOS) / 14839 Mobile Ecosystem /  
18797 Machine Learning for Signal Processing / 95706 OOA&D / 14740 Computer Networks

**Fudan University**, Shanghai, China

| Sept.2005 – Jul.2008

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

- Project: Digital Image/Video Watermarking based on DWT and DCT(C++/Matlab)

**Fudan University**, Shanghai, China

| Sept.2001 – Jul.2005

*B.S. of Electronic Engineering, Excellent Graduate Student*

## SKILLS

Programming: **Java/C++**(Proficient) C/Matlab/Ruby(Intermediate) Objective-C/HTML/CSS/Javascript/Python(Beginner)

Knowledge: **Android/AWS/Hadoop**/OOA&D/MySQL/JDBC/Servlet/JSP/Web/HTTP/Computer Vision/Machine Learning

## ACADEMIC PROJECT

- **PicKick - a Cloud-based Photo/Video App (Android/HTTP/MySQL + MongoDB) - CMU, 14837 Java Smart Phone**
  - ◇ Designed and implemented a Cloud-base photo/video web service for remotely storage and search using Android client(AsyncTask/ContentProvider/SQLite) - HTTP/JSON - Web Service(MySQL/MongoDB) and Google Map API v2.
- **SpaceMonkey - a iOS Shooting Game (Objective-C) - CMU, 14836 Mobile Game Dev**
  - ◇ Designed and implemented a 2D infinite shooting game on iPhone & iPad using Cocos2D and SpriteBuilder engine
- **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
- **MiniSQL Database Engine (C++) - CMU, 15615 Database Application**
  - ◇ A MiniSQL which supports creating table, B+ tree index creating, selecting from, insert, delete records queries library.

## WORK EXPERIENCE

- **Mobile Software Engineer Intern, NVIDIA(HQ), Mobile(Tegra) Software Department** | June.2015 – Aug.2015
  - ◇ Research, design and implement new visual computing features for Camera App on Android Shield tablet
- **Mobile Software Engineer, SONY Japan(HQ), Common Software 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

- **SFM based 2D/3D Reconstruction Android App - NVIDIA** | June.2015 – August.2015  
Responsibility: (Java - JNI- C++)
  - ◇ Researched and deployed a 3D Reconstruction pipeline to an Android App using NDK/OpenGL/OpenCV
- **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++)
  - ◇ Designed and developed features(UI/Core Service/Network, etc.,) on **framework and application**(> 20 apps released)
  - ◇ Designed and developed large-scale common software hybrid platform using **OOA/OOD, MVC, Design Patterns**
- **Bandwidth Image/Video Compression System - SONY(Japan)** | Nov.2008– Nov.2010  
Responsibility: (C/C++)
  - ◇ Researched, designed and developed image/video compression algorithm for digital cameras using JM, FFMpeg and based on standards **AVC/MPEG2/JPEG2000/JPEG**