**Lin Yu-Ching (Aaron)**

Research Leader of KKBOX Inc.

**Job Objective**

Explore how to improve human life by research methods and technologies

**Experience Summary**

* 3 year experience in developing shipped 3 product features, BI dashboard and several prototypes
* 2 year experience in building a 8-person team and cooperating with 3 academic institutes
* 3 year experience in learning programming languages and techniques, and applied in real products
* 1 year experience in maintaining 2G protocol

**Skill Inventory**

* Programming Language: Python, Scala, C/C++, Java
* Hadoop Scripting Languages: Spark, Pig Latin, MrJob, Hive
* AWS tools: EC2, S3, Dynamodb, Redshift, AWS RDS
* Research topics
  + Music classification
  + Recommender system
  + Audio/video signal processing

**Work Experience**

**Manager, KKBOX Inc.**

* Leader of Research Center 2014.04—now
  + Initiate prototype projects and solve requests from other teams
  + Handle data or feature requests and arrange resources to solve the problem
  + Design and improve system architecture used in the team
  + Attend international conferences in behalf of company
    - 2012 ACMMM, 2013 ISMIR, 2014 ACM Recsys, 2014 ISMIR
* Project Leader of BI dashboard 2014.10—now
  + Utilize the proposed a system architecture to shorten development schedule to few weeks
  + Utilize the system to shorten the internal process of data request from days to minutes
* Project leader and developer of Recommender system v2 2014.10—now
  + Design system architecture and facilitate AWS systems to ensure scalability of the system
  + Design a system to evaluate performance in training/prediction/online stage
  + Develop internal A/B testing environment
  + Change from Pig to Spark for either coding and computational efficiency
* Project initiative of applications of auto-tagging 2014.04—now
  + Propose applications to solve problems in the existing systems
  + Resolve obstacles while progress is stuck

**Assistant Manager, KKBOX Inc.**

* Lead researcher of Artist-based personalized music radio v1 2013.10—2014.07
  + Developed the first recommender system for KKBOX
  + Incorporated data from 6 regions with different usage behaviors
  + Implement collaborative filtering upon Hadoop to calculate artist similarity from millions of user logs
  + Cooperated with server team to design system architecture
* Project Leader of Dashboard of user listening history 2013.11—2014.02
  + Initiated this project to understand user behaviors and aim to improve recommender system
  + Experimented prototypes to design an intuitive interactive interface
  + Demonstrated several findings to the whole company
* Lead researcher of Tag-based music radio (prototype) 2013.06—2013.10
  + Initiated this project to explore the applied possibility of auto-tagging
  + Ported MATLAB programs to Python programs for efficiency
  + Enlarged mood tags to about 100 tags, including genre and usage

**Engineer, KKBOX Inc.**

* Lead Developer of mood-specific radio 2012.05—2013.06
  + User can listen to genre/year/mood specific radio
  + Helped PM to discuss developers and to track progress
  + Added several filtering methods to remove annoying songs
* Lead Developer of Tap Game 2012.05—2013.01
  + Users can play any songs available in KKBOX
  + Shipped in KKBOX mobile apps
  + Developed algorithm to generate a tap-game from audio signal
  + Developed method to remove noises and detect prolonged sound

**Protocol Engineer, MediaTek**

* Developer of 2G MAC layer 2010.11—2012.03
  + Maintained and developed modules in 2G MAC layer
  + Responded to developer/customer issues

**Patent**

* W.-L. Chang, I.-B. Liao, **Y.-C. Lin**, Y.-H. Yang, and H.-H. Chen, “A genre-based two-layer structure for music emotion classification,” Taiwan patent TWI380285 (2012/12/21).

**Education**

**Master** of Electric Engineering 2007.09—2009.06

in National Taiwan University

* Studied in music information retrieval, audio signal processing
* Published 9 conference papers and 2 journal paper
* Master thesis: Exploiting Online Tags for Music Emotion Classification
  + Experimented on more than 7000 songs and 180 tags (largest dataset then)
  + Resolved data-imbalance problem easily found in online data

**Bachelor of Science** of Electric Engineering 2003.09—2007.06

in National Taiwan University

* Overall grade average: 83.27, overall GPA: 3.62 / 4.00

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