

Yichen Liu

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A graduate student from CMU completing the second semester of a master's degree in ECE, with passion for coding, enjoy working on my own initiative or in a team.

Education

Academic Qualifications

- **Carnegie Mellon University**
M.S in Electrical and Computer Engineering, GPA: 3.8/4.0 Sept. 2014–Dec. 2015 (Expected)
- **Sun Yat-Sen University**
B.S in Computer Science, GPA: 3.8/4.0 Sept. 2010–Jul. 2014

Notable Projects

- **Cloud Computing Project:** 'Twitter Analytic Web Service'
I was the leader of a three person team. This cloud computing project aimed to provide query services of tegabytes of real-world tweet data with high throughput requirement(15,000rps). Our service was deployed on Amazon Web Service. As a member of team, my work included construction of efficient frontend server, maintenance and optimization of two backend database, and load balancing of them.
- **Evolutionary Computation Project:** 'Air Traffic Flow Management'
Evolutionary computation(EC), a kind of heuristic optimization method, can be applied to solve optimization problems. During my study of EC, I adapted differential evolution algorithm to optimize the schedule of all nationwide domestic flights.
- **Feature Extraction Project:** 'Feature Extraction in Activity Recognition'
Activity recognition(AR) is widely used in context-aware applications and interaction. With high dimensional time-series data, feature extraction directly affects the performance of classification. I implemented three algorithms namely PCA, LDA and MFA and compared their influence on AR accuracy.
- **Cineaste:** 'Douban Movie Recommendation System'
I created a personalized movie recommendation system for Douban users (Chinese version of IMDB). During this project, I crawled the rating data from douban, implemented ALS(a collaborative filtering algorithm) from scratch, built and deployed a website for users to browse their recommendations.

Awards

- **Yahoo! Hack Day Beijing** Excellence Award
- **China National Mathematics Modeling Contest** Excellence Award
- **Sun Yat-Sen University Computer Programming Contest** Second Award
- **Sun Yat-Sen University Scholarship** Second Award×3

Previous Employment

- **Tencent** **Shenzhen**
Backend Development Intern July 2013–September 2013
The online game industry is prompting. However, bugs could come with more players which would cause huge economic loss to the game company. During my internship, I was responsible for developing monitoring system for moneyflow and trading behaviors to detect bugs and malicious users inside online games.

Technical and Personal skills

- **Programming Languages:** Advanced in: C, C++, Python, Shell Scripting
Also have programming experience with: Java, Scala, Go, PHP, Javascript, HTML, L^AT_EX.
- **Industry Skills:** Unix, MySQL, AWS, Hadoop, Hbase, Nginx, Numpy, Scikit-Learn, Matplotlib.
- **Communication Skills:** English (Fluent), Chinese (Fluent), Spanish(Basic).