

Longqi (Rocky) Cai

Software Engineer interested in Machine Learning
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<http://misaka-10032.github.io>

EDUCATION

- **Carnegie Mellon University** Pittsburgh, PA
M.Sc. in Information Technology Strategy (3.87/4.00) Sep. 2015 - Dec. 2016
- **Fudan University** Shanghai, China
B.Sc. in Computer Science and Technology (3.64/4.00) Sep. 2011 - Jul. 2015

EXPERIENCE

- **Glow, Inc** San Francisco / Shanghai
Software Engineer Jul. 2014 - Jul. 2015
 - Contributed 18k lines to Glow app, 8k lines to Nurture app, 4k lines to internal library.
 - Customized fancy UI widgets and animation.
 - Set up internal Maven center with Archiva and Gradle.
 - Integrated Google Now API, including both server and client side OAuth2 flow.

REPOSITORIES

- **Caffe Exts** *Extended Caffe as Independent Study*
 - Integrated Message Passing Interface (MPI) for distributed training.
 - Implemented fast Hough Transform Layer for powerline detection task.
- **Halstm** *Class project for Parallel Programming*
 - Implemented Long-Short Term Memory (LSTM) with Halide.
 - Made use of multi-thread execution and vector ALUs.
 - Improved CPU performance by 2x speedup, compared with Caffe.
- **Alg** *Hobby / self-paced learning*
 - Implemented commonly used algorithms and data structures with Python.
 - Including hash map, min/max/med heap, avl/red-black tree, order statistics, graph traversal.
- **ML/BigML/PGM** *Accomplished ML assignments*
 - Implemented machine learning algorithms, some with Big Data frameworks.
 - Including SVM, SVR, Logistic Regression, Decision Trees, HMM, LDA, sampling methods.
 - Naive Bayes with Hadoop; Sparse Logistic Regression with Spark; Distributed Matrix Factorization with Spark; LDA with Parameter Server.

LANGUAGE

- **Python** lover; experience with machine learning, algorithm, data processing/analysis/visualization.
- **Java** experience with Android and Big Data; **C++** experience with Caffe extensions; **Shell** experience with batch processing; **Makefile/CMake/Gradle** experience with project setup; **HTML/Javascript/CSS** experience with short demos; **Vagrant/Docker** experience with environment setup; **C/Assembly** experience with 15213; **CUDA** experience with 15418; **Latex** and **Markdown** experience with documents.