# Brian Hu

**Career Objective**
Full-time Software Engineer

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## EDUCATION

*M.S.* in Computer Science, **Northwestern University,** Evanston, IL**.** GPA: 3.7/4.0 *09/2014 - **12/2016***

*B.S.* in Electrical Engineering, **Tsinghua University,** Beijing, China. GPA: 90.8/100 *09/2010 - 07/2014*

## SKILLS

- C/C++, Java(expert), Python, Javascript, AngularJS, Swift, Lisp, PHP(proficient)
- MySQL, MongoDB, Flask, Django, CodeIgniter, Spring
- Algorithms, Database, Networking Infrastructure, Distributed Systems, Machine Learning, Virtualization

## PROFESSIONAL EXPERIENCE

**Wintone, LLC** *Beijing, China* *Software Engineer Intern* *06/2013 - 09/2013*

- Built a recognition system for handwritten mathematical expressions. Designed a real-time algorithm to segment image and recognize symbols with Gaussian Mixture Model. Implemented in C++ and Javascript/jQuery.
- Published an academic paper on DAS 2014 as first author.

**Northwestern University** *Evanston, IL* *Research Assistant* *06/2016 - 08/2016*

- Implemented TextJoiner, a web information extraction system that extracts language patterns based user query from Wikipedia database. Implemented in Java and deployed with CodeIgniter framework.
- Refactored the previous system with n-gram language model that responds to multiple conjunctive sub-queries.

## SELECTED PROJECTS

Android App Development for Networking: AppProphecy *01/2016 – 07/2016*

- Designed and implemented an Android app to predict user-perceived latency by recording ARP requests and track response, and find the corresponding server based on geo-location, implemented in Java.
- Implemented the back-end server with packet train measurement approach and designed the decision tree algorithm for prediction, improved predict precision by 40% with cache, using python Flask and SQLite on Amazon AWS.

Open-Source Project: Network Interface Card Driver Development for Nautilus *01/2016 – 06/2016*

- Developed the network interface card driver for the open-source operation system, Nautilus OS, under qemu virtualization on the transport layer, implemented and tested in C and assembly.
- Implemented Ethernet packets transmission and reception with 1000 threads scale asynchronous programming.

Android App Development for Data Analysis: Aarogya *03/2015 – 09/2015*

- Designed and implemented an Android app that facilitates users on their health related search. Designed user-friendly interface to search for near-by hospitals for specific diseases, implemented in Java.
- Implemented an interface for health organizations to analyze user search history based on their geo-location, using AngularJS and Python Flask.

Hackathon Winner, Wildhacks 2015 *10/2015 – 11/2015*

- Implemented YoursTruly in Swift, which is a location-based crowd-sourcing app for users to record their voice messages related to their personal stories and facilitate easy-to-share features based on geo-location with iBeacon.
- Won the Belvedere Trading Award for Facilitating Communication.

## SELECTED HONORS AND AWARDS

Murphy Fellowship, Northwestern University *09/2014*

Outstanding Study Scholarship, Tsinghua University *2011,2012,2013*