

# Xue Geng

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## EDUCATION

### University of Toronto

*Master of Engineering in Computer Engineering*

**Toronto, Canada**

09/2018 – 06/2020 expected

### Harbin Institute of Technology

*Bachelor of Engineering in Software Engineering*

**Harbin, China**

09/2014 – 07/2018

## INTERNSHIP EXPERIENCES

### Jinan Municipal State Taxation Bureau

*Developer*

04/2018 – 06/2018

- Constructed tax data visualization system and taxation back-stage management system, visualized tax statistical data and tax relations between enterprises, aiming to alleviate tax evasion and avoidance.
- Used Echarts Javascript API and Baidu Map API with imported original tax dataset to display dynamic migration map, tax bearing rate difference map, statistical charts etc.
- Adopted PHP as back-end programming language.
- Used MySQL Database (with Navicat), imported original tabular tax data from .xls file into MySQL, data transmission based on AJAX technology, processed intricate JSON text and selected corresponding needed data into calculating tax data like VAT, tax bearing rate etc.

### Ruwei Information Technology Co., Ltd

*Full-Stack Developer*

12/2017 – 04/2018

- Developed a website for exhibiting artistic works with back stage management system and social sharing section for registered users like Twitter and Weibo.
- Used PHP language for back-end developing based on ThinkPHP framework.
- Implemented both mobile and website side, constructed webpages with bootstrap and jQuery and LayUI (Layer, web popup component) with HTML+CSS+JS.

### Harbin Institute of Technology Information department

*Front-End Developer/Prototype Designer*

10/2016 – 02/2017

- Developed a performance assessment system for HR department of the university, assessment based on courses, publications, and the number of students mentored for Master and PhD studies.
- Designed interactive prototypes for the website with the Axure RP8 tool and implemented half webpages using Bootstrap and jQuery based on HTML+CSS+JS.
- With the back end based on the Java language and the eclipse programming environment, did the page-data transmission with JSON data structure and AJAX technology.
- Upgraded based on users' feedback and corrected browser-compatibility errors.

## RESEARCH PROJECTS

### Adversarial attack on LSTM with Tensorflow

*Machine Learning Security Exploring*

09/2018 – 12/2018

- Implemented attacking methods on LSTM model, generated adversarial attacks form character level to word level.
- Trained LSTM on regular IMDB movie reviews dataset(bipolar), embedded discrete input texts into vector space using existing GloVe embedding space with the help of GPU workstation.
- Used WMD as a quality metric for our adversarial texts.
- Analysis the accuracy results on different datasets and different attacking methods (Deepfool, FGSM).

### Big Data Processing Simulation with the MapReduce programming model

*IoT Lab of school of computer science at HIT*

10/2016 – 02/2017

- Installed Hadoop for a pseudo-distributed configuration on MacOS and configured in Eclipse (the test code written in Java).
- Ran and tested the MapReduce project by loading the local data files on HDFS in their given locations.
- Combined source code of Hadoop to analyze and comprehend the MapReduce's working process.

## SKILLS

**Programming Language:** Java, PHP, HTML, CSS, Javascript, SQL

**Technologies:** Bootstrap, jQuery, AJAX, ThinkPHP, MySQL