

# HAOHAN BO

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## Education

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### Master of Science, Computer Science

McGill University

- GPA: 3.93/4.0

*Montreal, Quebec, Canada*

09/2017 – 08/2019 (Expected)

### Bachelor of Engineering, Software Engineering

Wuhan University

- GPA: 3.76/4.0 (Ranking: 10/285)

*Wuhan, Hubei, China*

09/2013 – 06/2017

## Experience

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### Research Assistant

Data Mining and Security Lab, McGill University

*Supervised by Prof. Benjamin C. M. Fung*

- Text anonymization through generative adversarial network(GAN) and reinforcement learning Method.

*Montreal, Quebec, Canada*

05/2018–present

### Computer Vision Intern

SenseTime Group Limited

*Supervised by Dr. Zhanghui Kuang*

#### *Intelligent Review of Images using Deep Convolutional Neural Network*

- Implemented Online Labeling System using Python, PyQt4, Requests.
- Improved and Trained Convolutional Pose Machines to generate ROIs and heatmaps of human in images
- Designed and implemented the Attention and ROI based Convolutional Neural Network for classification.
- Trained the Neural Network using Caffe based on cost-sensitive strategy with millions of data.
- Implemented the Software Development Kit using C++.

[https://master.sensetime.com/web/demo/#/filter/filter\\_np](https://master.sensetime.com/web/demo/#/filter/filter_np)

*Shenzhen, Guangdong, China*

10/2016–04/2017

### Research Assistant

University of Waterloo

*Supervised by Prof. Shi Cao*

- Implemented Augmented Reality application on Google Tango Tablet using Unity 3D in C#.

*Waterloo, Ontario, Canada*

07/2016–09/2016

### Research Assistant

Laboratory of Bioinformatics, Wuhan University

*Supervised by Prof. Feng Liu*

#### *Recognition of Relationships of Genes Using Deep Learning*

- Developed web spiders using selenium in Python.
- Designed and trained Convolutional Neural Network through NLTK, genism(Word2Vec) and TensorFlow.
- Implemented the website to display result of the algorithm using HTML5, CSS3, JQuery and Flask.

*Wuhan, Hubei, China*

10/2015–07/2016

### Research Assistant

Big Data & Cloud Computing Lab, Wuhan University

*Supervised by Prof. Weiping Zhu*

#### *Intelligent Web Crawler System*

- Designed the architecture of web crawler based on Scrapy in Python.
- Implemented a dozen website crawlers through Requests and BeautifulSoup.

*Wuhan, Hubei, China*

06/2015–10/2015

- Designed the database and stored data in MySQL.
- Developed the main control system of crawlers.
- Implemented data cleaning tools through SVM, Naive Bayes and Convolutional Neural Network based on NLTK, Scikit-learn, and Tensorflow.

## Group Leader of Web Front-End

Ziqiang Portals, Wuhan University

Wuhan, Hubei, China

05/2015–09/2013

### Website Projects

- Implemented the front-end of websites, such as the like landing page ("mobile.ziqiang.net.cn"), introduction page, and vote page ("topten.ziqiang.net.cn"), among others, using HTML5, CSS3, and jQuery.
- Managed all the projects of the front-end developer group.
- Trained new students with front-end technologies.

### CAPTCHA Recognition Chrome Extension of Educational Administration Management System

- Obtained CAPTCHA from the website using HTML5, Ajax and Javascript.
- Using Django on the back end to respond to requests.
- Designed the Convolutional Neural Network based on VGG with improvements using batch normalization.
- Implemented the functions related to the calculation of GPA and average of selected courses.

## Skills

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**Programming Languages:** Python, Java, C++, JavaScript, SQL, C#, MATLAB  
**Frameworks:** Caffe, Tensorflow, OpenCV, Unity 3D, Scrapy, jQuery  
**Other:** HTML5, CSS3, Git, Linux, MacOSX

## Awards & Scholarships

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Globalink Fellowship MITACS	2017
Globalink Research Internship Award MITACS	2016
Second Class Scholarship (Top 10%) Wuhan University	2015
First Class Scholarship (Top 5%) Wuhan University	2014
Merit Student Wuhan University	2014, 2015
First Prize, Festival of Software Culture in Central China	2014

## Extra Curricular Activities

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**Hackday, Programming Marathon in Central China** 05/2014

- Implemented (within 24 hours) an extension of Chrome, which is in Javascript, that aims to prevent people from substantially indulging in online shopping.

## Personal Projects

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*Learning Flappy Bird Game Using DQN (Tensorflow)*

*Tencent Captcha Recognition Using MobileNet (Keras)*