

# Wangmuge Qin

+1 (858) 531 1038  
✉ qwangmug@eng.ucsd.edu  
in wangmuge-qin-a46798125

*Seeking summer intern as a software engineer*

## Education

- 2012–2016 **BS in Mathematics and Physics**, *Tsinghua University*, Beijing, Major GPA: 3.8/4.0.  
2016–2018 **MS in Computer Science**, *UC San Diego*.

## Kernel Coursework

- Algorithm Design
- Probability Theory
- Database Systems
- Computer Architecture
- Numerical Analysis
- Automata Theory

## Project

### Neural Network for Java.

- Developed an easy-to-use toolkit to configure neural network in Java for research purposes, especially sequence-to-sequence tasks in natural language processing.
- Implemented various neural network layers including RNN, LSTM, GRU, embedding layer and sliding window.
- The toolkit trains models by computing derivative flows and allows arbitrary combination of layers.

### Database Construction of Chinese Criminal Argots.

- Created a GUI database system to manage around 15,000 entries of criminal argots for a National Social Science Project of China, 2011 (Project No. 11BYY035).

### PhyDesktop, *Course Project*, in group of two.

- Designed a GUI application for class activities management in Java.
- Configured the database to maintain user information and its interaction with the program.
- Implemented functions like login, deadline reminder and sending notifications.

## Research Experience

2015–2016 **Natural Language Processing Lab**, *Tsinghua University*.

Deep Learning Methods in Chinese Word Segmentation and Part-of-Speech Tagging

Advised by Prof. Maosong Sun

- Read considerable amount of papers in neural network, machine translation, Chinese word segmentation and other related topics.
- Independently built several neural network models with references to previous researches and improved those models according to experiment results.
- Creatively introduced RNN encoder-decoder model to Chinese word segmentation by treating that problem as a sequence generation task; optimized the original model and obtained good performance.

## Skills

Languages Python, Java, C & C++, SQL

Tools Theano, Matlab,  $\text{\LaTeX}$