

# Xianda Zhou

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## EDUCATION

**University of Texas at Austin** (Current, GPA 3.89) Expected 2020  
M.S. in Computer Science  
**Tsinghua University, Beijing** (GPA 88.8/100, Rank 24%) Graduated Jul. 2018  
B.Eng. in Computer Science and Technology

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## INTERNSHIP

**Software Engineer Intern, Microsoft Bing Core Relevance Team** **Sunnyvale, California**  
Deep Candidate Generation for Search Query Alteration (Supervised by Dr. Anlei Dong) Jun. – Aug. 2019

- Used **C#**, **Python** and a **SQL**-like language to parse terabytes of search log on **Azure**
- Implemented and fine-tuned a **BERT** classifier in **PyTorch** to determine the quality of query alterations
- Replaced the previous IBM model-generated candidates with BERT ones and improved the L1 Fidelity rate by 1.5%

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## PUBLICATION

**Mojitalk: Generating Emotional Responses at Scale** **ACL 2018 (oral presentation)**  
Xianda Zhou, William Yang Wang

- The first work to use naturally labeled emojis for large-scale emotional response generation
- Designed/implemented several models in TensorFlow to train an emotional response generation agent

Paper: <https://arxiv.org/abs/1711.04090> Code: <https://github.com/claude-zhou/MojiTalk>

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## PROJECTS

**Selected Course Projects at University of Texas at Austin** **Austin, Texas**  
Parallel HDBSCAN (Parallel Algorithms for Scientific Computing, Prof. George Biros) Nov. 2016 – Jan. 2017

- Designed/implemented parallel HDBSCAN clustering algorithm on TACC supercomputer using **C++**, **OpenMP** and **MPI**
- Invented an approximate all-kNN using parallel Borůvka algorithm and reduces its time complexity from  $O(n^2)$  to  $O(n)$

**Selected Course Projects at Tsinghua University** **Beijing**  
Online DLC Experiment System (Software Engineering, Prof. Xiaoying Bai) Nov. 2016 – Jan. 2017

- Designed/implemented a front-end circuit drawing framework; became proficient in **Node.js**
- Drew an intricate CPU schematic on my framework, as a creative crossover with Computer Organization course (below)
- Won Students' Choice Award (5/30 teams); project selected as an exemplar for juniors (<https://youtu.be/Vo7Kc4WtG8o>)

CPU Design and Implementation (Computer Organization, Prof. Weidong Liu) Oct. – Nov. 2016

- Designed a 16-bit pipeline CPU and implemented it in **VHDL** on **Xilinx ISE**, finished in 10 days that usually takes 3 weeks
- Ranked No. 1 in CPU clock speed (1/35 teams)

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## TEACHING

**Teaching Assistant, University of Texas at Austin** **Austin, Texas**  
CS331: Algorithm and Complexity, Professor Vijaya Ramachandran Feb. – May 2019

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## SKILLS AND HONORS

**Programming Languages:** C++, C, C#, Java, Python, JavaScript, SQL, Matlab  
**Technologies:** Object-Oriented Programming, Web Development/Node.js/Flask/Java Web  
Machine Learning/NLP/Tensorflow/PyTorch, Android/Mobile Application, Data Visualization/D3.js  
**Languages:** Native in Mandarin Chinese; Fluent and proficient in English (GRE V159 Q170)  
**Honors:** Scholarship for Outstanding Academic Performance, Tsinghua University (Twice)  
17<sup>th</sup> Place in National Matriculation Examination (Gaokao), Jiangxi Province, China (Jun. 2013)