# Ze-Yuan "Zack" Hu

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## **EDUCATION**

## University of Texas

## Austin, TX

Sept 2017 - May 2019

- M.S. in Computer Science. (GPA: 4.00/4.00)
- Coursework: Distributed Systems, Operating System, Human Computation, Structured Models in NLP, Machine Learning, Natural Language Processing, Semantics

## University of Wisconsin

## Madison, WI

Sept 2010 - Dec 2014

- B.A. in Computer Science. (GPA: 3.74/4.00)
- B.A. in Economics with Honors. (GPA: 3.85/4.00)
- B.A. in Mathematics. (GPA: 3.81/4.00)
- Recipient of 2013 Honors Summer Sophomore Research Apprenticeship
- Recipient of 2012 Meek Bishop Scholarship in Economics, top 2 out of 500 economics major students

#### WORK EXPERIENCE

## Software Engineer

IBM

August 2015 - August 2017

Db2 LUW federation team

- Constructed Hive and Impala wrappers with <u>C++ and Java</u> to support federation database between traditional RDBMS and Hadoop-based data warehouse solution
- Created automated setup tools with <u>Shell</u> that reduce product configuration time by 75%
- Enhanced server option optimization tools using  $\underline{\mathbf{c}}$  to reduce federation database performance tuning time by 90 % and enable the capability of tuning the product against Hive, Impala, and Spark
- Resolved over 20 defects, including a severe memory leak issue that impacted a \$1.6 million deal. Awarded IBM Manager's Choice Award 2016

#### Research Assistant

#### **UW-Madison**

September 2012 – May 2013

- Implemented SVM using Python to examine the impact of Feedback on children's learning outcomes
- Examined the statistical correlation between fMRI data and DTI data in measuring the brain activity of children during their learning process with Python

## SELECTED PROJECTS

- HyperPebblesDB (2018), a Key-Value store that is part of LevelDB family with focus on reducing write amplification. Written in C++
- **Distributed Key-Value Store** (2018), built a distributed Key-Value store with <u>Python</u> that uses eventually consistency model with two session guarantees: *Read Your Writes* and *Monotonic Reads*
- Identifier Inference through Neural Network (2017), constructed N-gram and Neural language models using tensorflow to study the *Identifier naming convention* problem
- Sequential CRF for NER (2017), implemented a system that uses HMM model for POS tagging and CRF model for NER in Python

## LANGUAGES AND TECHNOLOGIES

- Languages: C++; C; Java; Shell; Python; SQL; MATLAB
- Software: Db2; Tensorflow; Keras; Git; ClearCase; Hive; Impala; Maven; Hadoop