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: Human Computation, Structured Models in NLP, Machine Learning, Natural Language Processing, Distributed Systems, 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 <u>`C`</u> 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 <u>`Python`</u> 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 <u>`Python`</u>

PROJECTS

- **Identifier Inference through Neural Network** (2017), built N-gram and Neural Network language models using <u>`tensorflow`</u> to study the *Identifier naming convention* problem
- **Exploring Stereotypes and Biased Data with the Crowd** (2017), examined the behavior of crowd on Amazon Mechanical Turk to help with the bias detection in datasets for machine learning tasks
- **Shift-Reduce Parsing** (2017), built a shift-reduce parser from scratch using both a greedy model and a global model with beam search in <u>`Python`</u>
- **Sequential CRF for NER** (2017), implemented a system that uses HMM model for POS tagging and CRF model for NER in <u>`Python`</u>

LANGUAGES AND TECHNOLOGIES

- C++; C; Java; Shell; Python; SQL; MATLAB; R;
- DB2; Eclipse; ClearCase; *nix; Emacs; Vi; Hadoop; Hive; Impala; Sqoop2;