

Ze-Yuan “Zack” Hu

Homepage: <http://zhu45.org/>
Email: ferrishu3886@gmail.com

EDUCATION

University of Texas **Austin, TX** **Sept 2017 – May 2019**
• M.S. in Computer Science. (GPA: 3.87/4.00)

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 Internship **Schlumberger** **May 2018 – August 2018**
HPC infrastructure team
• Implemented a monitoring component of the in-house High-Performance Computing (HPC) engine to provide the fault tolerance and handle the “straggler” problem
• Employed SGD algorithm to dynamically learn the best timing for backup executions of the in-progress tasks based on the computation task characteristics
• Built a C++ code generator that automatically generates the application layer code based on the engine API

Software Engineer **IBM** **August 2015 – August 2017**
Db2 LUW federation team
• Constructed **Hive** and **Impala** wrappers with C++ and Java to support federation database between traditional RDBMS and Hadoop-based data warehouse solution
• Created automated setup tools with Perl and Shell that reduce product configuration time by 75%
• Enhanced server option optimization tools using 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*

PUBLICATION

- Jialin Wu[†], **Zeyuan Hu[†]**, Raymond J. Mooney. “Joint Image Captioning and Question Answering” In *VQA Challenge and Visual Dialog Workshop at the 31st IEEE Conference on Computer Vision and Pattern Recognition* (CVPR2018) ¹

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 Python that uses eventually consistency model with two session guarantees: *Read Your Writes* and *Monotonic Reads*.

^{1†}Equal contribution

TEACHING

- NEU466M Quantitative Methods in Neuroscience (Spring 2018, UT Austin)
<http://ctcn.utexas.edu/quantitative-methods-neuroscience/>
Teaching Assistant
- M408K Differential Calculus (Fall 2017, UT Austin)
<https://www.ma.utexas.edu/users/pmorales/syllabus/syllabus.php?unique=53780>
Teaching Assistant

SPECIALIZED SKILLS

- **Languages:** C++, C, Java, Shell, Python, SQL, MATLAB
- **Software:** CMake, Autotools, Docker, Tensorflow, Keras, Git, ClearCase, Hive, Impala, Maven, Hadoop
- **Graduate Coursework:** Machine Learning, Structured Models for NLP, Human Computation & Crowdsourcing, Natural Language Processing, Semantics, Distributed Systems, Operating System

SERVICE AND SOCIETIES

- UTCS Master Admission Committee (Jan 2018 – March 2018), Member
- IBM Diamond & Ring Toastmaster Club (Jun 2016 - Jun 2017), President