

Zack Hu

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EDUCATION

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| University of Wisconsin | Madison, WI | Sept 2010 - Dec 2014 |
| <ul style="list-style-type: none">• B.A. in Computer Science. (GPA: 3.74/4.0)• B.A. in Economics with Honors. (GPA: 3.85/4.0)• B.A. in Mathematics. (GPA: 3.81/4.0)• Recipient of 2013 Honors Summer Sophomore Research Apprenticeship• Recipient of 2012 Meek Bishop Scholarship in Economics, <i>top 2 out of 500 economics major students</i> | | |

WORK EXPERIENCE

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|---|-------------------|----------------------------------|
| Software Engineer | IBM | August 2015 – Present |
| DB2 LUW federation team | | |
| <ul style="list-style-type: none">• Construct Hive & Impala wrappers to support federation database between traditional RDBMS and Hadoop-based data warehouse solution• Create automated setup tools that reduce product configuration time by 75%• Enhance server option optimization tools to reduce federation database performance tuning time by 90 % and enable the capability of tuning the product against Hive, Impala, and Spark• Resolve over 20 defects, including a severe memory leak issue that impacted a \$1.6 million deal. <i>Awarded IBM Manager's Choice Award 2016</i> | | |
| Research Assistant | UW-Madison | May 2013 – April 2014 |
| <ul style="list-style-type: none">• Applied Spatial Gaussian Process & Dirichlet Process on fMRI data and improved power of testing on predicting Dementia based upon pixel value of the scan by 5 % | | |
| Research Assistant | UW-Madison | September 2012 – May 2013 |
| <ul style="list-style-type: none">• Used Support Vector Machine technique 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• Created a data extraction & formatting toolkit in Python that can finish the processing of over 600 MB experimental data within 10 seconds | | |

PROJECT

- **Watson Introspector** (2016), a cognitive tool built in Python on IBM Bluemix for understanding software, answering questions, and interacting with software architecture and data flows in 3D. *Awarded Second Prize in IBM China Development Laboratory Hackathon.*
- **OptiTimal** (2013), an android application that allows user to log their time usage and generate a simple statistical report that characterizes their time management style.
- **Checker** (2012), an AI engine developed in Java for checker game with alpha-beta pruning search algorithm, depth-first iterative deepening method.
- **Malloc** (2011), a memory allocator for the heap of a user-level process in C.

LANGUAGES AND TECHNOLOGIES

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