Zhenbang Wang

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EDUCATION

- **University of Illinois Urbana-Champaign** — Champaign, IL
  B.S. in Computer Science & Math; GPA: 4.0 / 4.0 — *Expected May 2018*

- **University of California, Berkeley** — Berkeley, CA
  Exchange Student in EECS; GPA: 3.78 / 4.0 — *Aug. 2015 - June 2016*

- **Harbin Institute of Technology** — Harbin, China
  B.ENG.(Honors) in EECS; GPA: 92.71 / 100 Rank: 14 / 218 — *Aug. 2014 - July 2015*

SKILLS

- **Proficient with** Python, Java, C, C++, Matlab, Django, Elasticsearch, Unix Utilities (git, vim, etc.), AWS
- **Familiar with** JavaScript, D3.js, Leaflet.js, Swift, R, SQL, Xgboost, OpenMP, Spark

EXPERIENCE

- **Forward Data Lab** — Champaign, IL
  *Research Assistant, **Prof. Kevin C. Chang*** — *June 2017 - Present*
  - Created an interactive platform to represent dynamic query results in a multi-dimensional view by Elasticsearch, Django, D3.js and Leaflet.js
  - Devised a semantic structure by category taxonomy of Wikipedia to dynamically generate a hierarchical overview of given topics, and expected to submit one paper in 2018
  - Developing a profiling platform to connect researchers together and inform researchers of personalized research trends

- **Probabilistic Inference** — Champaign, IL
  *Research Assistant, **Prof. Sasa Misailovic*** — *May 2017 - Present*
  - Built PSense, the first system for automated symbolic analysis of sensitivity in probabilistic programs, and expected to submit two papers in 2018
  - Created and analyzed **Advancing Machine Learning** models in a probabilistic programming language (**PSI**)
  - Evaluated numerical integration methods to simplify outputs of PSI

SELECTED PROJECTS

- **Kidney Donation Network** — Apr. 2016, Berkeley, CA
  - Rank No.6 in 164 teams
  - Modeled the kidney donation network by a directed graph and maximized the overall interest of donation chains
  - Approximated this NP Complete problem with methods including Parallel Programming, Integer Linear Programming, Reduction, Greedy, and Simulated Annealing

- **Malloc Memory Allocator** — Apr. 2017, Champaign, IL
  - Rank No.5 in 314 teams
  - Achieved 5% better performance than the standard allocator in GNU C Library (glibc) in terms of memory usage and speed
  - Implemented memory coalescing and memory splitting, and maintained free chunks in a hash table with fast buckets and large buckets

- **Botball Robotic International Tournament** — June 2014, Los Angeles, CA
  - Led our team to the semifinal - Overall Second Prize & Best Programming
  - Designed a PID controller to grab objects steadily, achieved robot calibration by ultrasonic sensors, and implemented a target recognition algorithm with OpenCV

- **Compiler for COOL Language** — Jan. 2016 - May 2016, Berkeley, CA
  - Built a complete compiler for COOL language, including a lexical analyzer using jflex, a parser using CUP, a semantic analyzer in Java and a code generator producing MIPS Assembly
  - Acquired a comprehensive ability to analyze and design a language

COURSEWORK

- Advanced Algorithms, Software Engineering, Machine Learning, Optimization, Data Mining, Random Process, Operating System, System Programming, Compiler, Signals and Systems