

# Xiaodan (Sally) Zhang

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## EDUCATION

### University of Illinois at Urbana-Champaign

- Major: Computer Science
- GPA: Available upon request
- Concentration: Text mining, Information Retrieval

Urbana-Champaign, IL

Master of Science, December 2015 (expected)

### University of Illinois at Urbana-Champaign

- Major: Statistics and Computer Science
- Minor: Informatics, Mathematics
- GPA: Available upon request
- **Departmental Honor:** Distinction STAT/CS

Urbana-Champaign, IL

Bachelor of Science, May 2014

## WORK EXPERIENCE

### Department of Computer Science, *Teaching Assistant*, University of Illinois, Champaign, IL

August 2015 – Present

- TA for an Intro to Computer Science course for non-engineering majors which covers HTML/CSS/JS, Excel and d3.js
- Lead 2 labs and hold office hours every week to help students who have questions regarding the course materials

### Groupon, Inc., *Software Engineering Intern*, Palo Alto, CA

June 2015 – August 2015

- Worked on the Fraud Prevention engineering team to drive the strategy for building the backend infrastructure of the anti-fraud platform across all of Groupon using Ruby on Rails and RSpec
- Worked on fraud data analysis to evaluate two models for classifying Groupon Local purchases as fraud/non-fraud using various kinds of ETL frameworks and tools including Splunk, Hadoop, Teradata, Accertify, Python/Bash/SQL, etc.
- Worked on a GeekOn Hackathon project, AL, an experience package recommendation system built with AngularJS, Jetty web socket and Knapsack approximation algorithm

### Packt Publishing, Inc., *Technical Reviewer*, Remote

February 2015 – May 2015

- Used my expertise in Tableau to shape the development of the book “Tableau Data Visualization Cookbook”
- Provided technical reviews for the book based on its designs, structures and contents

### Department of Computer Science, *Teaching Assistant*, University of Illinois, Champaign, IL

August 2014 – May 2015

- Helped monitor student teams and their progress in Senior Project I (CS 492) and II (CS493) class
- Met with teams regularly to talk about their technical designs, plans and software development process

### Bazaarvoice, Inc., *Software Engineer Intern*, Austin, TX

June 2014 – August 2014

- Worked on Data Services team to help rebuild the Universal Brand Catalog that enables content moderators to view brand candidates and validate their legitimacy alongside validating their associated synonyms
- Worked as a data wrangler to clean, transform, group and analyze brand data using Python and text mining techniques
- Web Crawled brand name lists using Scrapy framework
- Worked on back-end to design and implemented API definitions using Java and Dropwizard framework

### NeuStar, Inc., *Data Science Intern*, Neustar Innovation Center, Champaign, IL

June 2013 – May 2014

- Analyzed large scale DNS traffic data stored in the Hadoop cluster using HiveQL, Python and Shell scripts
- Wrote Hive UDFs (e.g. substring\_index function in SQL, etc.) in Java to process the domain name field
- Visualized the traffic data in Tableau by creating geographical Heat maps, Bar charts, Bubble graphs, etc.
- Built a DNS Dashboard for displaying plots generated by Tableau of major characteristics and descriptive statistics like Traffic, Response time, Response rate based on different Domains and Nodes
- Utilized Machine Learning techniques to build models for detecting DDoS attacks

## RESEARCH AND PROJECT EXPERIENCE

### StrongTaco - A Yelp Image Classification Framework, University of Illinois, Champaign, IL

Spring 2015

- An image classification framework that recognizes whether a photo taken by a Yelp user is food or non-food
- Applied and compared two data classification methods: Color Histogram and Bag of Words with SIFT as Visual Words

### FlavorSharer – HackIllinois 2015 project, University of Illinois, Champaign, IL

Spring 2015

- A cool web app that lets people know trending flavors of restaurants around and share their opinions about them with others

- A great data science project that consists data analysis, visualization and food science (Link: <http://flavorsavor.cloudapp.net/>)

**DishRank - Automatic Extraction and Ranking of Menu Items**, University of Illinois, Champaign, IL **Fall 2014**

- Created a framework for extracting candidate dishes, ranking and visualizing the most popular dishes in a restaurant
- Three steps: Candidate dish extraction, Candidate dish filtering with reference models, Ranking dishes by rating and novelty
- Utilized Phrase Mining technique, NLP noun-phrase extraction algorithm and smoothed background language model

**Social Visualization Project - PortraitOfStrongMan**, University of Illinois, Champaign, IL **Fall 2014**

- Data Visualization for training and competition data of Powerlifting and Strongman from 2012 to 2014
- Created quantified-selfie line charts, bubble charts and comparison line charts for comparing the Bench Press, Squat and Deadlift training data of multiple trainers using Python, Highcharts JS and D3.js

**Social Visualization Project – AccentDiff**, University of Illinois, Champaign, IL **Fall 2014**

- Data Visualization for comparing the accent of different countries including both native and non-native English speakers
- Web crawled data using Scrapy framework, edited and transformed audio data using FFMPEG and AudioWaveform, and D3.js for visualizing the data

**Social Visualization Project – TemporalPoliMap**, University of Illinois, Champaign, IL **Fall 2014**

- Data Visualization for exploring events happened between politically significant countries during specific time periods
- Used Google BigQuery for querying and extracting data from the GDELT database, and D3.js for visualizing the data

**Text Information Systems Project - ReviewsHub**, University of Illinois, Champaign, IL **Spring 2014**

- A review Analyzer for Best Buy Reviews. It has a following three functions:
- Search Engine: Search in all the reviews about product properties that users queried
- Compare Visualization: Search and visualize comparison patterns in reviews
- Summarizer: Summarize long reviews to a few sentences

**Programming Studio Assignments Portfolio**, University of Illinois, Champaign, IL **Fall 2013**

- SVN code viewer with Comment Filter System (Link: <http://web.engr.illinois.edu/~zhang349/Portfolio>)
- All Java codes for a Chess Library and Python codes for a CSAir Flight System can be shown with jQuery slide down effects

**Department of Computer Science, Research Student**, University of Illinois, Champaign, IL **August 2012 – August 2013**

- A scientific computing project about Topology of Relations; read papers about Topological Data Analysis in sports
- Did data analysis and integration by writing scripts in Python and plotting graphs with Matplotlib and Numpy packages

**Yummy! Web-app**, University of Illinois, Champaign, IL **Spring 2013**

- An IM-like web application based on Google App Engine. It provides a place for people to discuss where to eat with others in a specific group. (Link: <http://yummy-webapp.appspot.com>)

**Web Programming Course Project**, University of Illinois, Champaign, IL **Spring 2013**

- A Client-side TodoList that is based on HTML5 Local Storage (Link: <http://web.engr.illinois.edu/~zhang349/TODO-List/>)
- The functions include adding/removing list items, supporting multiple lists with names, marking list items as done, deleting all done items in a list, lists persist between browser sessions, animations on main actions, and sorting items by deadlines

## LEADERSHIP AND ACTIVITIES

**2015 Grace Hopper Celebration**, *Student Opportunity Lab Presenter*, Houston, TX **October 2015**

- Will present for the topic “Build an Interactive Data Science Project with Shiny-R”

**2014 Grace Hopper Celebration**, *Student Opportunity Lab Presenter*, Phoenix, AZ **October 2014**

- Presented with Shivani Rao (Box Inc.) for the topic “From Classroom to Industry – Learning to be a Data Scientist”

**Women in Computer Science**, *Active Member*, Champaign, IL **September 2010- Present**

- Actively take part in general meetings, tech talks and networking events

**Illini Statistics Club**, *Webmaster*, Champaign, IL **May 2013 – May 2014**

- Create and manage the club’s website: get more and more undergraduate/graduate students of Statistics major, Stat&CS major involved in career events, club social events, mentor/peer advisor programs, and company tech talks

**Society of Asian Scientists and Engineers, Outreach Chair, Champaign, IL**

**September 2010 – May 2012**

- Helped plan volunteer events for SASE to promote science and engineering in the local community
- Took charge of the Engineer in the Classroom (EITC) Program for 2011

**Silicon Valley Entrepreneurship Workshop, Attendee, Silicon Valley, CA**

**January 2012**

- Selected as one of the 25 students to a one-week Silicon Valley Entrepreneurship Workshop and visit several start-ups
- Interacted with corporate leaders to study technology commercialization and new venture creation

## **TECHNICAL SKILLS AND QUALIFICATIONS**

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- **Computer Languages:** Java, Python, Ruby, C/C++; R, Matlab, SAS; SQL, HTML5, CSS, JavaScript, jQuery; Ocaml
- **Other:** Hadoop, HIVE, MapReduce, Splunk; Tableau, Weka; Github, Agile Software Development; Maven; Ruby on Rails
- **Languages Spoken:** English, Mandarin Chinese, French

## **HONORS AND CERTIFICATIONS**

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| • 2015 Grace Hopper Celebration Scholar from Anita Borg Institute  | <b>Summer 2015</b>            |
| • 2015 ABI Systers Google I/O Travel awards  | <b>Spring 2015</b>            |
| • Certifications of Accomplishment for all classes in the Data Science specialization on <a href="https://www.coursera.com">coursera.com</a> | <b>Spring 2015</b>            |
| • 2014 Fall Conference Travel Grant from UIUC CS department  | <b>Fall 2014</b>              |
| • 2014 Grace Hopper Celebration Sponsorship from Bazaarvoice Inc.  | <b>Summer 2014</b>            |
| • Graduated with Departmental Honor: Distinction STAT/CS   | <b>Spring 2014</b>            |
| • 2013 Grace Hopper Celebration Scholarship from UIUC CS department  | <b>Spring 2013</b>            |
| • University of Illinois Dean's List   | <b>Fall 2010, Spring 2012</b> |
| • SAS Certified Base/Advanced Programmer for SAS 9   | <b>Spring/Summer 2012</b>     |