ANDREW W ZHAO

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EDUCATION

Berkeley, CA **University of California, Berkeley** Aug 2013 – May 2017
Bachelor, Computer Science
Technical GPA: 3.5
Cumulative GPA: 3.3

EXPERIENCE

Integra Telecom, Vancouver WA **Business Intelligence Intern** Jun 2015 – Aug 2015

- Learned how to utilize Microsoft SQL Server and Tableau to work with relational databases.
- Used Microsoft SQL Server to develop queries that aggregated data into data sources for business users.
- Automated data reports to solve long standing ease-of-use issues.
- Significantly reduced weekly load on production servers by optimizing problematic queries, most notably reducing a 3+ hour query down to a few minutes.

Saltire Software, Tigard OR **Saltire Software Intern** Jun 2012 - Aug 2012

- Utilized Geometry Expressions and iBooks Author to create an eBook version of Euclid's Elements.
- Used Geometry Expressions to create interactive diagrams to illustrate the eBook.
- Explored the limits of Geometry Expressions to generate ideas for new features.
- The eBook can be found at http://goo.gl/IbiWlu.

Lincoln High School, Portland OR **Peer Tutor/TA in Math** Jan 2011 - Jun 2013

- Figured out simpler ways of explaining math concepts to those who needed help.

PROJECTS

- **XML Extraction:**
  - Designed and implemented a table-driven **SQL Server** framework for analyzing XML files.
  - Hosted code reviews to get advice from team members for general and scalable design decisions.
- **Kids First Project:**
  - Used **HTML/CSS** with the **Bootstrap** framework to create a website for a nonprofit organization.
  - Can be found at http://kidsfirstproject.org.
- **Tic-tac-toe:**
  - Designed a two player Tic-tac-toe game using **HTML/CSS** and the **Ruby on Rails** framework.
  - Implemented game functionality and logic using **Javascript**.
  - Can be found at http://calm-atoll-9489.herokuapp.com/
- **Sliding puzzles:**
  - Utilized the **Apache Spark** framework to apply MapReduce to finding all states of the Fifteen puzzle.
  - Ran the implementation on the Amazon EC2 servers to solve puzzles of larger dimensions.
- **Non-partisan Travelling Senator Problem**
  - Used **Python** to create a program to solve a variant of the Traveling Salesman Problem.
  - Implemented input/output as well as solving via random walk, greedy search and 3-opt annealing.

SKILLS

- Proficient with Python, C, SQL Server, HTML, CSS, Tableau.
- Familiar with Ruby on Rails, JavaScript/JQuery, Bootstrap, Java, LaTeX, SSIS.
- Able to utilize OpenMP, Intel SSE Intrinsics, and MapReduce through Apache Spark/Hadoop.

KEY COURSEWORK

Completed:

- CS 170: Efficient Algorithms and Intractable Problems Spring 2015
- CS 188: Introduction to Artificial Intelligence Spring 2015

Currently taking:

- CS 186: Introduction to Database Systems Fall 2015
- CS 162: Operating Systems and System Programming Fall 2015
- CS 168: Introduction to the Internet: Architecture and Protocols Fall 2015