# 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, Tableau and Agile methodology to develop code.
- Worked closely with team members and customers from other company teams.
- 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.
- Tested new queries to check for performance and sane output data.

Saltire Software, Tigard OR **ASE 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.
- Stress tested Geometry Expressions by creating extremely complex diagrams.
- Explored the limits of Geometry Expressions to generate ideas for new features.
- Learned and used WinCVS for version control.
- 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/created a table-driven **SQL Server** framework to analyze XML files for file properties.
- **KidsFirstProject:** Used **HTML/CSS** with the **Bootstrap** framework to create a website for a nonprofit organization.
- **TicTacToe:** Built a two player TicTacToe game using **HTML/CSS** and **Javascript** with the **Ruby on Rails** framework.
- **Sliding puzzles:** Utilized **MapReduce** through the **Apache Spark** framework to strongly solve various sizes of the Fifteen puzzle. Ran the implementation on Amazon EC2 servers to solve puzzles of larger dimensions.
- **Processor:** Designed a processor in **Logisim** to run a custom machine language.
- **Depth Maps:** Implemented and optimized a program using **Intel SSE** and **OpenMP** to analyze stereoscopic images and generate depth maps.
- **Network Game:** Designed a program that utilizes **minimax** to automatically play the Network Game.
- **Message compression:** Created a program from scratch that compresses and decompresses messages.

## SKILLS

- Proficient in programming with Python, C, Java, SQL Server, HTML, CSS.
- Previous experience with Ruby on Rails, JavaScript/JQuery, Bootstrap, LaTeX.
- Able to utilize OpenMP, Intel SSE Intrinsics, and MapReduce through Apache Spark/Hadoop.
- Experience with Windows, OS X and Unix.
- Self-motivated, fast learning, creative problem solver with attention to detail.
- Very flexible, can work well with or without a team. (Experience with Agile development)

## KEY COURSEWORK

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