# Lucas Stevenson Wood

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## Education
- Southern Methodist University - Dallas, Texas — Major GPA: 3.85
  Bachelors of Science in Computer Science — Expected Graduation: May 2018

## Honors
- Initiated to Upsilon Pi Epsilon, International Honor Society for the Computing and Information Disciplines

## Work Experience
*AT&T Big Data* — Dallas, TX
Big Data Intern — September 2016-Current
- I am currently creating a map based visualization that displays the movement of different U.S. military troops around the country to help identify which soldiers are moving in order to offer a cheap relocation plan for their cell service
- Created a globe visualization to display the geographic origins of various cyber attacks for one of our customers

*Northrop Grumman* — San Diego, CA
Software Engineering Intern — May 2016-August 2016
- I developed a fully automated test system using Windows Batch and Python to ensure that TestStand sequences comply with customer style guides, allowing the team to place members on other tasks.
- Assisted in the development of a TestStand sequence to allow for non annual sustainment for the INPS portion of the Joint Strike Fighter program in order to ensure quality hardware and accurate readings.

*San Diego Regional Economic Development Corporation* — San Diego, CA
Economic Development Intern — May 2015-August 2015
- Researched recent changes in the local sectors of tech, real estate, and life sciences and provided a weekly styled HTML newsletter to our subscribers
- Demonstrated excellent ability to work efficiently in a team by working on a weekly newsletter to inform local companies on recent developments in aforementioned local sectors

## Projects — Code Sample: https://github.com/lukewoodsmu/AREA-51 — Github Repository
Area-51 — AREA-51
- Visualization of each UFO sighting across the United States from 1995-1996.  Check the README for the code sample.
- I created a data parser that extracted the date each sighting occurred from a slightly broken data set, and then mapped the locations to their respective longitudes and latitudes on the US map.
- Demo at http://LukeWoodSMU.github.io/AREA-51 (AREA must be all caps)

Pyrap — Pyrap
- I created and trained a neural network to write poems, stories, or songs based on the writing of an author.
- To use words as input, I converted each word to a unique number so that they can easily be processed by a Neural Network

TF/IDF Inverted File Search Engine — SearchEngine
- I created a search engine from the ground up in C++ to place relevant words from articles into an index sorted by TF/IDF; Hash Table of AVL Trees created from the ground up using only basic standard library functionality
- The engine allows for boolean query processing

## Achievements
*$1000 Big Ideas Competition*
- A friend and I are creating a full node based web application that will integrate with Facebook in order to provide our users with current events relevant to them.
- Our business plan, concept, and current progress won us a $1000 prize, along with the ability to enter into the next round for a $70,000 prize to kickstart our business.

*Data Structures Sorting Competition*
- My partner and I achieved 2nd place out of 40 teams at sorting a gigantic list of strings of various sizes.  Outperformed first place algorithm in data sets containing few duplicates but has a slightly higher average runtime.
- Used a combination of Bucket Sort followed by Quicksort with a switch to Insertion Sort at partition set size of 9 to achieve maximum speed

## Greatest Skills
- Advanced Javascript, Data Visualization, Data Extraction, Automation, Algorithm Design

## Volunteer Experience
*The League of Amazing Programmers* — Carmel Valley, CA
Youth Computer Science Teacher — May 2015-August 2015
- I taught a programming class to youth students on creating interactive applications using Java

## Relevant Coursework
Databases Concepts • Computer Networks Distribution Systems • Fundamentals of Algorithms • Programming Languages • Introduction to Programming Concepts • Programming Concepts • Linear Algebra •  Discrete Computational Structures • Introduction to Engineering Design • Data Structures • Scientific Computing • Assembly Language