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

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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

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Projects   Virtual Reality Resume: http://lukewoodsmu.github.io/   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)

The Grateful Net   TheGratefulNet
- This is a research heavy project; I have been exploring the mathematics behind Neural Networks.
- I created a recurrent neural network and trained it on the lyrics of The Grateful Dead. This yielded some pretty interesting results as vanilla recurrent neural networks are fairly inefficient at natural language processing. I am currently moving to a LSTM to provide some more coherent output.

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 web application using a node based stack that will integrate with Facebook in order to provide our users with current events relevant to them in Dallas.
- Our business plan, concept, and current progress won us a $1000 prize, along with the ability to enter into the next round.

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. We outperformed first place algorithm in data sets containing few duplicates but had a slightly higher average runtime on natural language.
- 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

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Greatest Skills

- Advanced Javascript, Data Visualization, Data Extraction, Automation, Algorithm Design

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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

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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

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