Luke Wood | Google Software Engineering Intern

3.8 Major GPA | Southern Methodist University

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Work Experience

Google San Francisco, CA

Software Engineering Intern May 2017-Current

- Made Firebase and Actions on Google consoles into progressive web apps
- Reduced the average server connection time for the Firebase console by 22.07%
- Improved the first interactive load time from 19,890 ms to 4,780 ms (-75.96%)

AT&T Big Data Dallas, TX

Big Data Intern September 2016-May 2017

- Wrote a Scala Spark library for sparse graph analysis
- Created a series of in-browser 3D data visualizations in three.js
- Led tech development meetings on graph theory and convolutional neural nets

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Recent Open Source Work

Parallelized MapReduce in the Web Browser

- Uses the WebWorker API to multithread in the browser
- Prevents expensive computation from blocking the rendering thread
- Testing, development, and distribution handled with Gulp and Closure Compiler

Keras GloVe Embeddings

- Published to PyPi repository under kerasglove
- Uses GloVe vectors published by Stanford's natural language processing team
- Works with both the Tensorflow and Theano backend for Keras

Tensor Product Convolutions for Text Data | Work in Progress

- Implementing a new type of 1D convolution sequence data
- Operates on top of embeddings for text data
- Extracts semantic information by nonlinearly combining non-adjacent vectors

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Recent Projects | https://LukeWood.github.io/

Spam Text Detector Using Recurrent Neural Network

- Trained a classifier using GRU, LSTM, and vanilla RNN architectures
- Completed a grid search to determine the most effective hyper parameters
- Most effective model got 99.6% accuracy and 99.8% precision

Cat vs Dog Convolutional Neural Network Classification

- Classified cats and dogs using a tensorflow CNN
- Compared performance to a multi layer perceptron
- Visualized the filters learned by the CNN

Honors: President of Computing Honors Society, Upsilon Pi Epsilon

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Specialties: Machine Learning, Full Stack Development, Networks