Justin Fan

Jf35@rice.edu
(781)-539-2507
99 Sunset Blvd, Houston, Texas, 77005

Education

Rice University, Houston, Texas
B.S. in Computer Science
GPA: 3.41/4.00
Relevant courses*: Computational Thinking, Algorithmic Thinking, Introduction to Program Design*

Skills

Preferred Languages: Java, Python
Experience with: HTML/CSS
Tools: IntelliJ, PyCharm, Sublime
Other Languages: Mandarin and Cantonese

Projects

Part of speech tagging (Spring 2016) Python
- Built a stochastic part of speech tagger based on hidden Markov models.
- Implemented bigram and trigram Viterbi to tag each word in an untagged dataset with 97% accuracy.

Evolutionary tree inference (Spring 2016) Python
- Inferred optimal evolutionary trees for given DNA sequences of different species.
- Determined optimality of evolutionary trees using parsimony scores.

Pairwise sequence alignment (Spring 2016) Python
- Used dynamic programming to find the optimal global/local pairwise alignment between two sequences.

Disease transmission mapping (Spring 2016) Python
- Looked at real data of an infection outbreak and determined the most probable disease transmission map through graph theory.
- Worked with rooted, directed minimum spanning trees.

Network resilience analysis/ Facebook network partitioning (Spring 2016) Python
- Analyzed and partitioned a network of Facebook users using the Girvan Newman method.

Stock market predictor (Fall 2015) Python
- Used Markov chains as a statistical model of stock performance to predict market behavior.

Activities

Rice Nocturnal: Rice's premiere a cappella group. (Fall 2016 - present)
Rice Club Lacrosse (Spring 2016)