

Liu, Yibo

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Objective:

An internship as a system/software programmer or data analyst/statistician.

Education:

University of Wisconsin – Madison

Expected graduation, May 2018

Bachelor of Science: double major Computer Science and Statistics

Cumulative GPA: 3.68/4.00

Relevant Computer Science courses taken: *Introduction to Java Programming, Introduction to Data Structure, Introduction to Discrete Mathematics, Introduction to Artificial intelligence, Introduction to Computer Engineering, Linear Programming Methods, Algorithm Theory (in progress), Data Science (in progress), Machine Organization and Programming (in progress), Internet of Things (in progress)*

Relevant Statistics courses taken: *Introduction to Statistical Methods, Introductory and Intermediate Data Analysis with R, Introduction to Probabilistic & Math Statistics, Applied Linear Regression, Statistical Experimental Design*

Relevant Mathematics courses taken: *AP Calculus AB, Calculus and Analytic Geometry II, Calculus-Functions of Several Variables, Elementary Matrix and Linear Algebra, The Theory of Single Variable Calculus*

Computer Programming and Data Analysis Skills:

- Programming Languages: Java, Python, C, C++
- Statistical Programming in: R, Python
- Web Programming in: HTML & CSS, JavaScript
- Linear Programming in: Matlab
- Operating Systems: Windows 7 / 8, Mac, Linux
- Database: SQL
- Machine Learning/Data Analysis: Linear Regression, Logistics Regression, Classification, Support Vector Machine, Decision Tree, k-th Nearest Neighbors

Independent Projects While at UW Madison:

Linked List Data Structure:

- Reddit: A simulation of the social web Reddit. The information of users and their posts are stored in linked lists.
- Shopping web: a simulation of the shopping web Amazon. The information of users, shops and commodities are stored in linked lists.

Queue and Stack Data Structure:

- Version Controlling System: A simulation to GitHub, the versions of repositories are stored in stacks, and changes are to be committed are stored in queues.

General Tree Data Structure:

- File Management System: in a general tree data system, every node represents a folder. Inside each folder, there could be folders and files, or both.

Graph and Hashmap Data Structure:

- Social Networking: in a graph data system, each node represents a user and each edge represents friendship between the users. The info of each user is stored in a hashmap. The key of the hashmap is the user and the value is an ArrayList of the user's friends.

Statistical Project studying factors affecting the GDP of a nation:

- Take data of GDP of 197 nations across the world in 1992 and corresponding data about potential factors affecting the GDP. A whole model of the response variable and independent variables was made and then backward elimination was applied. Models for different groups of nations were made and selected as well.

Work experience:

University of Wisconsin- Madison

March 2015- August 2015

- Provide part-time custodial services to UW housing department.

University of Wisconsin-Madison, SSEC

September 2016-present

- Statistical Data Analysis, to reduce raw data, perform analysis to determine NIST traceable resistance calibration values to 6-digit accuracy and 3 sigma uncertainty and to statistically validate the data.

Languages:

Chinese, English