Jinghan (Julia) Guo

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OBJECTIVE

To obtain Software Engineer (front-end, back-end, full stack, quality) positions in high-tech or financial companies

SKILLS & ACCOMPLISHMENTS

Programming: C (3y), C++ (2y), Python (2y), Java (2y), Fortran (3y), MATLAB, Go

Data: PostgreSQL, MySQL, JSON, Agile, YAML

Web Application: Python (Flask), HTML

Other: Linux, Vim, GitHub, Jira

EDUCATION

The George Washington University, Washington, DC

Master of Science Degree in Computer Science, Aug 2015 – May 2017 ***GPA: 3.60 / 4.00 (current)***

Relevant Coursework:

Computer Science Fundamentals (Data Structures, Algorithms), Computer Systems, Design & Analysis of Algorithm, Advanced Software Paradigms, Probability for Computer Science, Computer System Architecture, Computer Networks, Database Management Systems, Data Warehousing, Information Retrieval Systems.

Peking University, Beijing, China

Master of Science Degree in Atmospheric Physics and Environmental Science, Sep 2011 - Jun 2014 ***GPA: 3.63 / 4.00***

Liaoning University, Shenyang, China

Bachelor of Science in Environmental Science, Sep 2007 - Jun 2011 ***GPA: 3.46 / 4.00***

EXPERIENCE (full details are shown on my personal website https://jinghanguo.github.io/)

Signal Vine, LLC, Alexandria, VA

Software Engineer (Intern) 09/2016 – Now

- Apply program definition language (similar with lisp, defined by scala) on the customized messages.
- Develop programs for the message management platform and twillo.
- Create REST APIs to test file transfer between local and server, and efficiently update messages.

COUSE PROJECTS (full details are shown on my personal website https://jinghanguo.github.io/)

- **Simulate TCP Communication (Python, C, HTTP, TCP):**
  Create a socket, bind it to a specific address and port, send and receive a HTTP packet.
- **Distributed Distance Vector Routing (C++, HTTP):**
  Create a distributed set of procedures which comprise a distributed asynchronous distance vector routing for network.
- **Routing Emulation (C, Routing, Inter-Process Communication):**
  Emulate the functionalities of hosts and routers using BSD sockets for inter-process communication.
- **Big Number Operation (Java):**
  Implement an infinite precision arithmetic package for integer with more than 10 decimal digits.
- **Memory Manager (Java):**
  Implement a memory management package for storing variable-length records in a large memory space, which uses worst fit rule for selecting which free block to use for a memory request.
- **Maze Simulation (Java, Disjoint-set, DFS/BFS):**
  Create a random maze, use depth-first search (DFS) and breadth-first search (BFS) to find the paths in this maze, respectively.
- **Address Book Search (C++, Sort, Binary Search):**
  Create an address book which supports multiple field search in O(nlogn) time complexity. It uses binary search after sorting different fields.
- **Text Analysis (Go):**
  Analyze text document with Go language. It fulfills histogram of characters, alphabetical list of the words, histogram of the words, and returns the top three word sequences in the file.