Alice Zhang

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EDUCATION

University of Minnesota-Twin Cities 2020-2024
Bachelor of Science, Computer Science, GPA 3.77 *Minneapolis, MN*

SKILLS

Programming Languages Proficient: Python, Java, C++, C Familiar: JS, OCaml
Tools and Frameworks Github, Windows, Linux, Docker, Git, HTML, CSS, JQuery, Foreman, Puppet, Ansible, R
Spoken Languages English, Chinese (conversational), Spanish (reading proficient)
Coursework Algorithms & Data Structures, Program Design & Development, Machine Architecture & Organization, Natural Language Processing, Internet Programming, Adv. Programming Principles, Discrete Structures

PROFESSIONAL EXPERIENCE

Teaching Assistant Jan 2021 – Present
University of Minnesota *Minneapolis, MN*
- Designed 14 weeks of curriculum teaching Python, Java, object oriented program principles, and data structures (queues, binary trees, linkedlists, arrays, etc)
- Supervised 35+ student lab sections, conducted weekly office hours for 230+ student courses, and graded using JUnit automated testing
- Courses: Introduction to Algorithms and Data Structures, Introduction to Programming Concepts in Python

IT Infrastructure Specialist Mar 2021 – Present
University of Minnesota *Minneapolis, MN*
- Led initiative to upgrade 18 research virtual machines for Grouplens research group
- Coordinated software and security upgrade for 255 University iDRAC servers
- Configured automated management of 250+ Linux virtual machines using infrastructure tools Foreman and Puppet
- Documented university approved processes for decommissioning and managing virtual machines

CRA DREU Research Intern Jun 2021 – September 2021
Computing Research Association and University of Washington *Seattle, WA*
- Implemented Python scripts to source 160,000+ Twitter posts from JSON and CVS files
- Created UI designs for slider, toggle, and word filter implementation with Javascript, HTML, and CSS

PROJECTS

Performance Optimization Study in C Fall 2021
Machine Architecture and Organization
- Optimized the implementation of a 2D array squaring algorithm for various input sizes by 70% utilizing knowledge of processor pipeline and memory hierarchy
- Analyzed and benchmarked the performance of linear and binary search algorithms for array, tree, and linkedlist implementations in C

Hash Table Implementation and Collision Prevention Analysis Spring 2021
Intro. Data Structures and Algorithms
- Developed unique hash table implementation for known and known data and evaluated 3 methods to mimic key collisions in Java

INVOLVEMENT

Leadership Positions Founder (Literacy Initiative, Carene-id), Technical Content Team Lead (Tech Start-Up, humanID), Officer (New Literary Generation Club), Mentor (College of Science and Engineering Ambassadors Program), Developmental Coordinator (Biomedical Research Club), Local Chapter Founder (Girls Who Code), Youth Philanthropy Intern (Youthprise)
Participation and Membership Association for Computing and Machinery-Women, First Year Leadership Institute, Society of Women Engineers, Google Developers Student Club