Shouzhuo Sun

Address: 3611 University Dr. APT 11N, Durham, NC, 27707; Phone: (757) 814-9320; email: ss1060@duke.edu

Education

Duke University, Durham, NC — August 2019 – Present

Master of Science, Computer Science. GPA: 3.84 — Expected graduation date: May 9, 2021

College of William and Mary, Williamsburg, VA — August 2015 – May 2019

Bachelor of Science, double major in Computer Science and Mathematics. GPA: 3.7

Work Experience

Research Assistant, Duke University, Durham, NC (JavaScript, MySQL, REST API) — April 2020 – Present

- Developing an online deliberation platform, hosted in docker on AWS, with Stanford Crowdsourced Democracy Team using React and Node.
- Designed and implemented user-friendly interface, making people without technical background setting up deliberation rooms possible. Developed various tunable parameters to tailor customer needs.
- As part of the IT team, helped organizations hold online deliberations of hundreds of people worldwide, including Close Up Foundation and Hong Kong Baptist University.

Teaching Assistant, Duke University, Durham, NC — Spring 2020, Summer 2020

- Led undergraduate TAs to grade homework and exams for Discrete Math in Computer Science department. Held office hours and recitation sessions on a weekly basis; designed weekly homework; designed exams.

Projects

Aggregated Deletion Propagation, Duke University, Durham, NC (Java, PostgreSQL) — February – August 2020

Advisor: Dr. Xiao Hu, Dr. Sudeepa Roy, Dr. Debmalya Panigrahi

- Coded the polynomial algorithm for easy queries and heuristic for hard queries for Aggregated Deletion Propagation problem. Ran a complete set of experiments using TPC-H data and SNAP data for Facebook.
- Improved running time by a factor of 1000 and scaled the input size from 10^4 to 10^7.
- Corresponding paper *Aggregated Deletion Propagation for Counting Conjunctive Query Answers* was accepted by PVLDB Vol 14.

System Programming, Duke University, Durham, NC (Java, C, C++) — Spring, Fall 2020

- In Distributed Systems class implemented a primary-backup service server and Paxos with Java, both of which are able to provide consistent and partition-tolerant services when the primary server is down.
- In Operating Systems class implemented heap, virtual memory, user-level thread library, and shell in docker.

Augmented Studio, College of William and Mary, Williamsburg, VA (JavaScript) — March 22 – 24, 2019

- A web application using Augmented Reality which could project the piano keyboard on a screen and indicate the keys that should be pressed at real time, helping learn piano.
- Won the 1st place of Cypher V, the Hackathon organized by MLH and WM.

The Maze, College of William and Mary, Williamsburg, VA (Java, Android) — Fall 2017

- A semester-long course project in which user could manually or automatically explore a randomly generated maze, using module-level design patterns, OOP, and test-driven development with Junit.
- Encapsulated the graphics and transport the game to Android.

Leadership

President of Badminton Club, College of William and Mary, Williamsburg, VA — Fall 2017 – Spring 2019

- Recruited members at the beginning of each year. Registered members doubled in two years.
- Organized annual regional tournament from start to end - about 100 entries and 200 games over a weekend.

Additional Information

- Skills: Python, Java, JavaScript, HTML, CSS, Node.js, React, C/C++, MySQL, Rest API, Agile, git, Linux
- Github: https://github.com/ssz1997
- LinkedIn: https://www.linkedin.com/in/shouzhuo-sun-b9991214b/